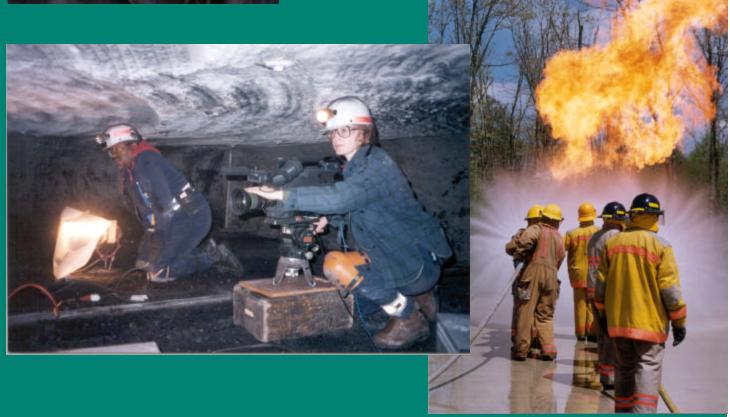
# Catalog of Training Products for the Mining Industry — 2001



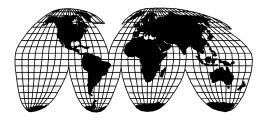
U. S. De part ment of La bor Mine Safety and Health Administration Na tional Mine Health and Safety Acad emy







Visit our website at http://www.msha.gov



# Catalog of Training Products for the Mining Industry — 2001



U. S. De part ment of La bor Elaine L. Chao Secretary

Mine Safety and Health Administration Dave D. Lauriski AssistantSecretary

# TABLE OF CONTENTS

	Page
Information and Products	ii
Other Sources of Training Materials	iii
Videotapes	1
TrainingMaterials	18
Pocket Cards	46
Informational Reports	49
HistoricalMaterials	53
Videotapes	53
TrainingMaterials	58
Index (By Subject)	61
Index (By Title)	72

### INFORMATION AND PRODUCTS

#### INTRODUCTION

Welcome to the 2001 edition of the Catalog of Training Products for the Mining Industry. You will notice some changes that we hope will make it easier for you to find the products you need. These changes are based on comments received from you, our customers.

The Academy also publishes a catalog, Courses for MSHA and the Mining Industry. You can obtain copies of this catalog from the address below.

#### HOW TO ORDER FROM THIS CATALOG

The items listed in this catalog can be ordered from:

National Mine Health and Safety Academy
Attention: Mary Lord
Department of Instructional Materials
1301 Airport Road
Beaver, West Virginia 25813-9426

Phone: 304-256-3257 Fax: 304-256-3368 E-mail: lord-mary@msha.gov

An order form is included in the back of the catalog for your convenience. **Please allow 4-6 weeks** for delivery.

Advance payment in U.S. currency is required for all orders from foreign countries. All other orders may be paid by check or purchase order. **NOTE:** *We are unable to accept credit cards.* 

We will gladly provide further information on any item listed in this catalog, address any comments you may have, or send you additional catalogs.

#### ADDITIONAL INFORMATION

You can also obtain sources of information on mine safety and health from the Academy's Technical Information Center and Library (TICL). The TICL is the largest library in the United States devoted to mine safety and health. It provides reference assistance so you can quickly locate and access books, hard copy documents, microfilm documents, journals, audiovisual materials, or electronically-stored materials. The TICL also offers timely research assistance to users in the form of research studies, technical reports, investigations, etc.; locates and makes available to users resources beyond the scope of the TICL's collection; develops and maintains a comprehensive collection of mine health and safety information; preserves and maintains a historical collection of mine safety and health documents for current users and for posterity; and trains users and potential users on the usefulness of the Library contents/services and how to obtain information quickly and easily.

### OTHER SOURCES OF TRAINING MATERIALS

In addition to the Academy, several other sources produce training materials. These include the National Institute for Occupational Safety and Health (former Bureau of Mines) and several states that participate in MSHA's State Grants Program. In this section we have given the names, addresses, and phone numbers (where available) of these organizations.

#### **MSHA STATE GRANTS PARTICIPANTS**

#### STATE OF COLORADO

Mr. Bill York-Feirn
Supervisor of Mine Safety and Training
Colorado Division of Minerals and Geology
1313 Sherman St., Rm. 215
Denver, CO 80203
Telephone: 303-866-3650
Fax: 303-832-8106

E-mail: bill.york-feirn@state.co.us

#### STATE OF CONNECTICUT

Dr. Charles D. Reese
Associate Professor
University of Connecticut
Labor Education Center
One Bishop Circle, LEC U13
Storrs, CT 06269-4056
Telephone: 860-486-3417

Fax: 860-486-5221 E-mail: cdreese@uconnvmuconn.edu

#### STATE OF FLORIDA

Mr. Ben Hart
Mine Safety Coordinator
Department of Environmental Protection
Bureau of Mine Reclamation
2051 East Dirac Drive
Tallahassee, FL 32310-3760
Telephone: 850-413-8192, ext. 27

Fax: 850-488-1254 E-mail: Ben.Hart@dep.state.fl.us

#### STATE OF GEORGIA

Mr. Anthony Whitworth
Program Coordinator
Mine Safety and Health Training Program
Appalachian Technical Institute
100 Pickens Tech Drive
Jasper, GA 30143
Telephone: 706-253-4520

Fax: 706-253-4525 E-mail: awhitwor@apptec.org

#### **STATE OF ILLINOIS**

Mr. Art Rice
Mine Safety Supervisor
Office of Mines and Minerals
503 East Main Street
Benton, Illinois 62812
Telephone: 618-439-9111
Fax: 618-438-8111
E-mail: dnrmm@midwest.net

#### STATE OF NORTH CAROLINA

Mr. James Turner
Bureau Chief
Mine and Quarry Bureau
North Carolina Department of Labor
111 Hillsborough Street
Raleigh, NC 27601-1092
Telephone: 919-807-2790
Fax: 919-807-2835
E-mail: jturner@mail.dol.state.nc.us

#### STATE OF TEXAS

Mr. Robert Novello
Director, Industrial Education Department
The University of Texas at Austin
P.O. Box 7518
Austin, TX 78713-7518
Telephone: 512-471-4633

Fax: 512-471-4695 E-mail: bnovello@mailutexas.edu

# NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

Ms. Bobbie Calhoun
Pittsburgh Reseach Center
P.O. Box 18070
Cochrans Mill Road
Pittsburgh, PA 15236
Phone: 412-386-5901
Fax: 412-386-5902

E-mail: minetraining@cdc.gov

This section of the catalog lists all presently available training videotapes. Videotapes offer trainers unique opportunities to reinforce key training objectives, expand and enhance training sessions, and add variety to training programs.

Videotapes are listed alphabetically by title. Where appropriate, coal-related items are designated (C) and metal/nonmetal items are designated (MNM).

All videotapes are available in VHS format and cost \$8.00 per tape.



Selected videotapes are available in SPANISH from:

The University of Texas at Austin Industrial Education Department P. O. Box 7518
Austin, TX 78713-7518
Telephone: 512-471-4633

# Accident Reduction Program/Post Accident Remedies, Technical Support (C/MNM)

This series con sists of videos of fering ways to prevent accidents before they happen. Technical Support conducts field in vestigations, laboratory studies, and analy sestore solve specific problems. MSHA is developing this video series in an attempt to help us learn from past accidents. We are providing you with what we are calling "Low Tech" remedies.

The first video con sists of six subject areas:

- 1. Water sprays on continuous mining machines
- Safely changing cutting bits on a continuous miner
- 3. Drip pans
- 4. Safely lubricating conveyor systems
- 5. Using safety props for mobile equipment repairs
- 6. Mechanics taking the vehicle's keys when performing maintenance

MSHA 1999 25 min

Cat No: VC 959 Price: \$8.00

### Air Brake System Safety (C/MNM)

Dis cusses braking systems safety standards and main-tenance procedures for on- and off-road vehicles.

MSHA 1990 44 min

Cat No: VC 887 Price: \$8.00

### Anthracite: Pre-Shift Examinations of Underground Mines

Video shows two mine fore men con ducting typ i cal pre-shift in spec tions at two differ ent un der ground anthracitemines.

MSHA 1994

31 min

Cat No: VC 806 Price: \$8.00

#### Ask the Right Questions

De veloped in co op er a tion with the United Mine Workers of America and Bitu mi nous Coal Op er a tor's Association—Joint In dustry Training Com mit tee, "Ask the Right Questions" discusses what needs to be done to identify sources of accidents and determine prevention methods at your mine. Four types of physical barriers and five types of human barriers are en acted and an alyzed using accident analy sis and problem identification (AAPI) techniques. This video is based on the concept that asking the right questions is fundamental to finding so lutions to our accident problems.

MSHA 1992 29 min

Cat No: VC 848 Price: \$8.00

### Automatic Emergency Parking Brakes (as required by 30 CFR 75.523-3)

This video discusses the applications of 30 CFR 75.523-3 to "all rub ber-tire, self-pro pelled elec tric haulage equip ment used in ac tive work ings of an un der ground coal mine — with the ex cep tion of per son nel car ri ers." Each of the spe cific sub paragraphs of this man da tory stan dard is not only ex plained but also dem on strated to re in force the concept.

MSHA 1992 17 min

Cat No: VC 846 Price: \$8.00

### Ball Mill Safety (M/NM)

Developed cooperatively by MSHA and Lehigh Port land Ce ment Company. Out lines the various steps—pre cau tions and procedures—that must be taken to safely and efficiently shut down a ball mill, enter, inspect, service (repair or perform routine main tenance), and restart the operation. Procedures discussed/demonstrated include: planning, crew selection and briefing, safe work permits, electrical lockout, isolating main tenance area, hatch/door removal, safe access, ventilation and respiratory protection, welding/cutting, hatch/door in stallation, and cleanup.

MSHA 1988 17 min

Cat No: VC 933 Price: \$8.00

### Barriers to the Prevention of Ground Fall Accidents (C)

Examinesminers' be liefs as to why ground fall ac cidents oc cur. In cludes book of sur vey ques tions for use at your mine and a re print of a Bu reau of Mines Information Circular on ground control accidents.

MSHA 1986 22 min

Cat No: VC 900 Price: \$8.00

#### Blind Spots Can Kill! (C/MNM)

A haul truck driver and an elec tri cian dis cuss the ac ci dent where a 240-ton haul truck drove over the electrician's work ve hi cle. No one was in the ve hicle, but the elec tri cian's one-ton truck was destroyed. This video stresses the importance of get ting the driver's at ten tion when ever you're near a large haul truck and avoid get ting into a blind spot.

MSHA 1996 6½ min

Cat No: VC 821 Price: \$8.00

#### Buckle Up On-The-Job (C/MNM)

Seat belts save lives! This program uses interviews with miners who were involved in heavy equipment accidents. The common thread among them? Their lives were saved by seat belts.

MSHA 1986 8 min

Cat No: VC 896 Price: \$8.00

#### **Coal Dump Point Safety**

Using trucks to dis pose of waste ma te rial and build coal stock piles are im por tant parts of the min ing op er a tion and trans por ta tion of coal, but ac cidents can oc cur during these activities if ad e quate safety pre cau tions are not taken. The video will illustrate the most com mon haz ards at dump points and piles and will dem on strate rec om mended safety practices.

MSHA 1998 15 min

Cat No: VC 924 Price: \$8.00

### Compressed Gases: The Correct Way to Use Acetylene and Oxygen for Cutting (C/MNM)

Produced in cooperation with Penn syl vania Department of En ergy. Shows proper use of ox y gen and acety lene for cutting, in spection procedures for tanks and gauges, hose cleaning, and ways to blow ox ygen and acety lene tank valves. Program content also covers proper way to attach regulators, safe ways to open valves, proper P.S.I. set tings and lighting torches, and turning off and storing equipment after use.

MSHA 1989 42 min

Cat No: VC 878 Price: \$8.00

#### **Confined Spaces in Mining**

Provides a general definition for confined spaces in mining, and displays common examples of confined spaces. Sug gests safety guide lines for working in and around confined spaces. In addition, the permitting process for confined space entry is out lined and 9 steps for safe confined space entry and exit are detailed.

Florida Dept. of Environmental Protection 1994 9 min

Cat No: VC 815 Price: \$8.00

#### Control of Back Injuries in Mining

This video de fines the or i gin and his tory of Lower Back Pain (LBP) and how the gen eral and min ing in dus try can com bat musculoskeletal in ju ries, including back in ju ries.

BuM 1995 25 min

Cat No: VC 938 Price: \$8.00

#### Conveyor Safety (C/MNM)

Introduces basic haz ards found around con veyor belts. Stresses accident prevention.

NOTE: Span ish ver sion avail able on VHS vid eotape from the University of Texas at Aus tin (see page 1). This vid eo tape is a taped version of the slide-tape program.

MSHA 1987 7 min

Cat No: VC 934 Price: \$ 8.00



### Customer and Delivery Truck Drivers Hazard Training (MNM)

This video provides haz ard information for truckers who fre quent mine sites. Covered are safe work behaviors that will help truck drivers avoid the dangers of ground, electrical, transportation, slip and fall, and numerous other haz ards that are common in and around mine sites. This video comes with an 8-page quide.

Penn State University 1997 10 min

Cat No: VC 920 Price: \$8.00

### NEW 3

### Dawn of a New Day: Continuous Haulage Safety (C)

This video addresses the haz ards as so ci ated with continuous face haulage systems.

MSHA 1998 23 min

Cat No: VC 861 Price: \$8.00



### Diesel Regulations — Heavy DutyVehicles (C)

This video was developed to provide as sistance to mine operators, die selequipment manufacturers, and ven dors in implement ing the final phase of the die sel regulations. New requirements for the approval of die selen gines and other components used in underground coal mines became effective November 25, 1999. This video covers sections 75.1909, 75.1910, and 75.1911 of the Code of Federal Regulations.

MSHA 1999 16 min

Cat No: VC 944 Price: \$8.00

### NEW \$

### Diesel Regulations — Light Duty Vehicles (C)

New re quire ments for the ap proval of die sel engines and other components used in under ground coal mines became effective on November 25, 1999. These cover sections 75.1909, 75.1910, and 75.1911 of the Code of Federal Regulations. This video has been developed to as sist mine operators, die sel

equipment man u fac tur ers, and ven dors with the implementation of the final phase of the die sel reg u lations.

MSHA 1999 11 min

Cat No: 949 Price: \$8.00

### Disease . . . Silicosis, The (C/MNM)

This video discusses the history of silicosis and empha sizes the haz ards for work ers in the mining industry.

MSHA 1998 5 min

Cat No: VC 888 Price: \$8.00

### Dump Point Safety: Stockpiles and Wastepiles (MNM)

Using trucks to dispose of waste material and build stock piles are important parts of many mining operations, but accidents can occur during these activities if ade quate safety precautions are not taken. This video will illustrate the most common hazards at dumps and piles and will demon strate recommended safety practices.

MSHA 1997 14 min

Cat No: VC 858 Price: \$8.00

### **Dust Control-It's Everyone's Business**

This video tape is one of a series on sil ica dust and sil i co sis. These pro grams are being pre pared jointly by the National In dustrial Sand Association (NISA) and the Mine Safety and Health Administration (MSHA). This 19-minute video discusses the importance of well-designed and main tained dust control systems and procedures to prevent exposure to dust containing silica.

MSHA 1997 19 min

Cat No: VC 843 Price: \$8.00

### DUST - The Invisible Enemy (C/MNM)

This video de scribes the por tion of dust generated by miningactivities that causes dust-related lung dis ease. Re spi ra ble dust, the small est, un seen par ti cles, are breathed deep into the lungs. When this dust over loads the lungs' abil ity to protect it self, dis ease can re sult. The sources of re spirable dust generation, its composition, and control are discussed.

MSHA 2000 15 min

Cat No: VC 960 Price: \$8.00

#### Electrical Grounding (C/MNM)

Shows ba sic principles of electrical grounding. The circuits ex plained in clude: voltage on frame of machine with no grounding and no electrical fault, voltage on frame of machine with an electrical fault and examples of "peg grounding" with electrical faults on different phases. Viewers also learn proper electrical groundingtechniques and ways to avoid electrical hazards by using correct grounding procedures.

MSHA 1989 28 min

Cat No: VC 877 Price: \$8.00



### **Emergency Response Planning (Who Needs It?)**

Video discusses the importance of small mine op er a tions having an Emergency Response Plan (ERP), and discusses the planning, development, and proper use of the ERP.

Bureau of Mines 1995 16 min

Cat No: VC 838 Price: \$8.00

#### **Escape from Mine Fires**

Illustrates the importance of knowing effective self-rescue and es cape pro ce dures in the event of a mine fire. Two miners describe their experiences in es cap ing a mine fire in 1988.

BuM 1990 49 min

Cat No: VC 882 Price: \$8.00

### Explosives Underground – Handling Explosives in Modern Mines (MNM)

This video emphasizes safety standards for the handling and transportation of explosive materials from surface to under ground magazines. It shows under ground storage of explosives, in specting vehicles required to transport explosives under ground, examining work places and scaling procedures, and loading and detonating explosives. It also includes staged safety violations and a review of an underground blasting accident.

NIOSH 1999 15 min

Cat No: VC 955 Price: \$8.00

# Fall Protection: Your Lifeline to Safety (C/MNM)

This video pro vides an over view of the haz ards as so ci ated with do ing work at ele vated lo cations and the importance of fall protection. Common types of fall protection systems are presented, in cluding personal fall ar rest and restraint devices. Special emphasis is placed on the development of site-specific policies and procedures, with regard to fall protection regulations in the mining in dustries.

MSHA 2000 14 min

Cat No: VC 961 Price: \$8.00

### Fatal Alert: Entry Into Storage Silos

This video ad dresses the haz ards in volved in clean ing a stor age silo. You'll hear from a res cue worker who de scribes a re covery oper a tion of a worker who fell into one of the si los.

MSHA 1999 11 min

Cat No: VC 943 Price: \$8.00

#### Fire Extinguishers (C/MNM)

Pro duced in coop er a tion with West Vir ginia Uni versity. Dis cusses means of ex tin guish ing a fire, classes of fires and some of the hazards to be considered when using a fire extinguisher. Also covers basic in spection techniques for stored pressure and cartridge operated dry-chemical extinguishers.

MSHA 1989 35 min

Cat No: VC 879 Price: \$8.00

### Fire Suppression – How It Works (C)

Fire is one of the most feared events that can hap pen at a mine. This video emphasizes the need for a fire risk analy sis of a piece of min ing equip ment. With a properly sized, in stalled, and maintained fire suppression system, a fire could be controlled and extinguished.

MSHA 2000 15 min

Cat No: VC 952 Price: \$8.00

#### First Aid Video (C/MNM)

Designed to be used with the First Aid Course to conduct first aid training in the mining in dustry.

NOTE: Span ish ver sion avail able on VHS vid eotape from the Uni ver sity of Texas at Aus tin

(see page 1).

One video tape covers the following eight subjects:

Patient Assessment	6:28 min
Artificial Ventilation	11:54 min
Control of Bleeding	9:11 min
Shock	7:54 min
Wounds and Dressing	10:44 min
Burns and Scalds	5:28 min
Musculoskeletal Injuries	7:59 min
Handling and Transportation	10:17 min

**NOTE:** Sep a rate tapes on a sin gle sub ject are not

available.

MSHA 1990

Cat No: VC 886 Price: \$8.00

#### Foremanship Training Series (C)

Series is designed to motivate coal mine supervisory per son nel. Stresses safety in all fac ets of the mining process.

The four video tapes may be shown in dependently or as a series (in the following sequence).

 Investigation - A Tool for Accident Prevention (C)

Stresses value of having supervisors investigate accidents in the mining industry in order to teach them how to recognize, diagnose and prevent various kinds of accidents.

BuM 1968 7 min

Cat No: VC 818 Price: \$8.00

• Sell Safety (C)

Ex plains why su per vi sors have to "sell" work ers on the ne ces sity of safe work hab its. Stresses that, to be success ful, su per vi sors must cre ate the de sire in the work ers to be safe and to consider the neg a tive (and possibly fa tal) re sults of unsafe work ing practices. High lights importance of safety (not only to work ers, but to work ers' families as well).

BuM 1968 10 min

Cat No: VC 820 Price: \$8.00

• Set the Pace (C)

Shows a supervisor "setting the pace" (for workers to follow) in safety practices in the coal mining industry. Supervisor exhibits the concepts of sincerity, enthusiasm and "setting an example."

BuM 1968 10 min

Cat No: VC 817 Price: \$8.00

• Teach Safety (C)

Stresses importance of the supervisor's responsibility when teaching miners correct, safe and efficient work methods.

BuM 1968 15 min

Cat No: VC 819 Price: \$8.00

#### Front-End Loader Safety (C/MNM)

Based upon re cords of ac tual mining ac cidents, de scribes some of the fatalities and injuries that can oc cur in the use (and mis use) of front-end load ers (particularly if the operator is in attentive, care less, dis obeys safety rules and/or takes un nec es sary chances). An alyzes these accidents and explains causes and pre ven tive mea sures. Pres ents safe operatingprocedures for various work as signments. De signed to mo ti vate front-end loader op er ators to adopt safe driving and operating habits and to de velop a positive attitude to ward mine haul age safety in gen eral.

Rev 1994 MSHA 14 min

Cat No: VC 862 Price: \$8.00

#### Geology of Roof Falls (C)

Stresses the importance of noting changes in rock strata. Pro gram fol lows a se quen tial change in roof rocks, and describes the changing roof conditions. Each fall area is de scribed with col or ful illustrations and photography to explain how weaknesses in the roof rock contributed to the falls.

NOTE: This vid eo tape is a taped ver sion of the slide-tape pro gram.

> MSHA 1987 20 min

Cat No: VC 941 Price: \$8.00

### Good Berms Save Lives (MNM)

This informative video discusses one mine's con cern about berms on their mining property. The mine stud ied their berms using various ma te ri als and dif fer ent berm heights. The size and speed of mining equipment, weather conditions, and grades also play a role in proper berm con struction. 15 min

MSHA 1998

Cat No: VC 928 Price: \$8.00

#### Ground Control in Surface Mining (C)

One of the most prevalent dangers facing new or inexperienced surface coal min ers is fall ing ground (or slope failure) involving highwalls and spoil banks. Pres ents over view of ground con trol problems. De scribes dan ger signs and vis i ble in di ca tors that warn of impending earth/rock slides. Emphasizes need for min ers to learn how to recognize these conditions. Out lines safety pre cautions and safe working practices miners must follow to avoid accidents.

> **MSHA** 1980 8 min

Cat No: VC 890 Price: \$8.00

### Ground Support . . . It's Important (Miner Mike Saves the Day) (MNM)

An older, more experienced miner "Mike" teaches two new in experienced miners about the haz ards of tak ing short cuts on the job and the im por tance of proper ground support in metal/non metal mines. This video il lus trates the proper tech niques and pro ce dures of drilling and bolting for ade quate ground sup port.

> NIOSH 2000 33 min

Cat No: VC 956 Price: \$8.00

### Harvey Roles I (MNM)

This video is a hazard recognition and first aid training video. It depicts a contractor arriv ing at a sur face mine to do some work. The lack of proper hazard training, in addition to his preoccupation while driving, ultimately contributes to a near fatal accident. The video uses a clas sic con trast of a competent and incompetent re sponse by two fel low work ers to teach the proper procedures for securing an accident scene, applying first aid principles, and engaging the Emer gency Medical System (EMS). This video comes with an 8-page guide.

> Penn State University 1997 13 min

Cat No: VC 921 Price: \$8.00

### Harvey Roles II (C)

This video is a first aid train ing video featuring a review of the fundamentals of rescue techniques following an electrocution. It reviews the proper procedure for rescuing a miner who has contacted an energized circuit, and demonstrates how to administer CPR. This video comes with an 8-page guide.

Penn State University 1997 13 min

Cat No: VC 922 Price: \$8.00

### Haulage and Hoisting in Underground Anthracite Coal Mining

Various haul age and hoisting systems typically found in anthracite coal mining areas are depicted and explained with reference to any hazards associated with each system as well as the measures needed for compliance with applicable 30 CFR regulations.

### NOTE: This vid eo tape is a taped ver sion of the slide-tape pro gram.

MSHA 1992 30 min

Cat No: VC 847 Price: \$8.00

### Hazards and Safety Practices on Surge Piles (MNM)

This video is designed to make dozer oper a tors, miners, and others who work on or around surge piles aware of the hazardsassociated with surge piles and in form them of the recommended safety practices.

MSHA 1997 11 min

Cat No: VC 859 Price: \$8.00

### **Hazards of Coal Stockpiling Operations**

This video shows what hap pens when min ers or equipment operators are work ing on a surge pile and the material unexpectedly collapses, breaks loose, or starts to flow under neath them. The disas trous result of being engulfed in loose material—suffocation—is demonstrated by a work ing model of a surge pile. The model shows how stockpiles with drawholes and feed ers work, what takes place within the piles, the properties of flowing materials, and how haz ard ous conditions can develop at

surge piles. In cluded are action scenes of heavy mobile equipment being used around stock piles.

The video empha sizes recognizing stock pile haz ards and preventing stock pile accidents.

MSHA 1994 26 min

Cat No: VC 831 Price: \$8.00

### Hidden Danger: Safety Improvements For Surge Piles (C)

Pushing coal on a surge pile has been called the most dan ger ous job at a prep plant. Nine teen miners have lost their lives in surge pile accidents since l980 and there have been many other close calls. This video will show two ways to pro tect equipment op er a tors from this dan ger: extra-strength cab win dows or re mote con trolled dozers

MSHA 2000 9 min

Cat No: VC 950 Price: \$8.00

#### **Inby Roof Support**

This video ex plores the myths/ex cuses min ers use for go ing inby sup ported roof.

MSHA 1995 12 min

Cat No: VC 811 Price: \$8.00

# Inspection Information Related to Silica Exposures of Surface Coal Miners VC 889 This video tape is no longer available.

This video tape is no longer available.

### Inundation of Water and Ignition — Eyewitness Account (C)

A miner de scribes his in volve ment in a coal mine inundationand explo sion. The video stresses the importance of test drill ing or examining aban doned areas.

MSHA 1994 12 min

Cat No: VC 823 Price: \$8.00

### Job Safety Analysis Process: A Practical Approach (C/MNM)

This video tape discusses the JSA process. It teaches the viewer how to de ter mine which jobs to se lect for JSA, to sep a rate jobs into basic steps for JSA, to identify the haz ards as sociated with each job step, and to use methods to control each hazard.

MSHA 1990 15 min

Cat No: VC 885 Price: \$8.00

### Job Safety Analysis: Roof Bolter Operations (C)

This JSA is a ba sis for the vid eo tape "Job Safety Analysis: Roof Bolter Operations." These materials are de signed to as sist the under ground coal mining industry indeveloping and conducting effective task training or other on-the-job training (OJT). Package contains a sample JSA for roof bolting machine operations and a video tape that demonstrates how to use JSAs.

MSHA 1993 36 min Cat No: VC 868 (videotape and booklet)
Price: \$8.00 (No cost for booklet)

### Locating and Rescue of Trapped Miners (C/MNM)

This video de scribes the equip ment and meth ods used to lo cate trapped min ers in an un der ground mine en viron ment.

MSHA 1998 18 min

Cat No: VC 927 Price: \$8.00

#### Lock Out and Tag for Safety

Main te nance work ers and electricians in the mining and milling in dustries are of ten exposed to "live" electrical circuits and electric powered machinery

and equipment. They are also ex posed to the unexpectedand accidental energizing of equipment they can be work ing on — un less they cor rectly deenergize, lock out, and tag the main power circuit that supplies current to this equipment. This video describes the proper procedures for performing safe electrical lock out and testing, and dramatically illustrates what can happen if this is n't done. Job safety training and following company safety policies are stressed as a means for preventing such electrical accidents.

Florida Dept. of Environmental Protection 1994 9 min

Cat No: VC 852 Price: \$8.00

### MERD — Mock Disaster (C)

This video doc u ments a Sim u lated Mine Emergency Problem held in an ac tive mine with 7 mine res cue teams par tic i pat ing. The problem consists of a reported ex plo sion with smoke coming out the return air ways. The ventilation controls have been destroyed, 16 miners are un accounted for, and the mine is located in a remote area. Company, state and federal in spectors, state and local police representatives, local emergency personnel, and a state life flight heli copter are used in the simulation. The video also dis cusses the les sons learned from the exercise.

MSHA 1998 17 min

Cat No: VC 926 Price: \$8.00

#### Mobile Equipment Safety (C/MNM)

This videotape explains potential haz ards as sociated with different types of mobile equipment. Stresses need for haz ard recognition and safe job procedures to avoid in jury.

NOTE: Span ish ver sion avail able on VHS vid eotape from The University of Texas at Austin (see page 1). This vid eo tape is a taped ver sion of the slide-tape program.

MSHA 1987 19 min

Cat No: VC 935 Price: \$8.00

### Pathway to Safety

When un der ground coal min ers take an unsafe path by fail ing to lock and tag out the elec tric ity when mak ing re pairs, a miner loses his life. This video shows how be ing in a hurry and do ing work in an un safe man ner can have dev as tat ing and sad con se quences on our families and co work ers.

Zeigler Coal 1997 9 min

Cat No: VC 957 Price: \$8.00

### Plain Talk About a Serious Problem . . . Silicosis (C/MNM)

An introduction to silicosis, followed by discussion of the me chan ics of dust, the respiratory system, threshold limit values (TLVs), and individual susceptibility. Andy Griffith narrates.

### NOTE: This vid eo tape is a taped ver sion of the slide-tape pro gram.

North Carolina De part ment of La bor Mine and Quarry Di vi sion 1983 18 min

Cat No: VC 936 Price: \$8.00

### Pre-Heater Safety (MNM)

Shot on lo cation, this pro gram emphasizes haz ard recognition and safe job procedures around pre-heaters.

MSHA 1986 12 min

Cat No: VC 898 Price: \$8.00

# Preventive Roof/Rib Outreach Program (PROP) (C) VC 947

This video tape is no longer available.

#### Protective Canopy (A Survivor's Story)

A taped in ter view with a roof fall sur vi vor who was op er at ing a scoop with a pro tec tive can opy. The miner tells in his own words how he survived after mine roof, ap prox i mately 4 feet thick, fell on the scoop he was op er at ing, trap ping him for at least 20 min utes. Taped on lo ca tion in Madisonville, Kentucky.

MSHA 1995 6 min

Cat No: VC 894 Price: \$8.00

### **Quarry Safety (MNM)**

Ex plains po ten tial haz ards that oc cur in and around quarries. Shows techniques for haz ard recognition and accident prevention.

NOTE: Span ish ver sion avail able on VHS vid eotape from The University of Texas at Austin (see page 1). This vid eo tape is a taped ver sion of the slide-tape program.

MSHA 1986 14 min

Cat No: VC 899 Price: \$8.00

#### Reason for Change (Canopy Save)

Danny Terry sur vived a mas sive roof fall be cause his ram car had a can opy. In his in terview, Danny ad mits he did not like can o pies, but now he is a firm be liever in can o pies...he would n't run any equip ment with out one.

MSHA 1997 13 min

Cat No: VC 844 Price: \$8.00

### Recovery of Farmington #9 – An Interview With Danny Kuhn

Danny Kuhn normally worked the mid night shift at the Farmington #9 Mine, as did the rest of the mine res cue team. But on the night of No vem ber 20, 1968, Danny did not work his regular shift be cause of a knee in jury. A call came into his home and some one asked his mother if he had worked last night. Danny hur ried to the mine, hop ing there had been only a small explosion. In this video you hear his ac count of the de struction he wit nessed and the re covery process used for finding his cowork ers.

NIOSH 2000 58 min

Cat No: VC 958 Price: \$8.00

#### Respiratory Protection Programs (C/MNM)

Demonstrates the three basic classes of respiratory equipment: atmosphere supplying, air purifying, and the combination of atmosphere supplying/air purifying. Discusses the wear ing and fit ting of protective equipment to guard against exposure to airborne contaminants, and the standards relating to control of these contaminants.

MSHA 1990 47 min

Cat No: VC 946 Price: \$8.00

# Rock Falls – Preventing Rock Fall Injuries in Underground Mines (MNM)

This video demonstrates work procedures used by under ground miners to detect unstable ground conditions and techniques to protect miners from in juries due to rock falls. It also demonstrates visual examination and sounding techniques, safe manual scaling procedures, and ground support systems. These techniques are shown through a typical mining cycle.

NIOSH 1999 20 min

Cat No: VC 954 Price: \$8.00

### Roof and Rib Fall Accident Statistics, An Overview of (C)

Designed to examine past and current roof and rib fall ac ci dent trends, and costs in volved. By an a lyzing these trends it will present a clearer pic ture as to what areas of the mining cycle and work place need to be examined further, and in dicate what has to be done to reduce the physical and financial damage that re sult from such accidents.

### NOTE: This vid eo tape is a taped ver sion of the slide-tape pro gram.

MSHA 1988 15 min

Cat No: VC 942 Price: \$8.00

### Roof Bolting Facts (C)

Helps un der ground min ers better un der stand how roof bolts work in various roof conditions and how to use them more effectively.

MSHA 1988 19 min

Cat No: VC 918 Price: \$8.00

### Roof Evaluation and Decisions in Roof Control (C)

En cour ages min ers to vi su ally in spect and eval u ate the roof and ribs of their work ing place, and instructs them on how to iden tify the haz ard ous roof conditions they may en counter.

MSHA 1988 14 min

Cat No: VC 917 Price: \$8.00

#### Roof Fall Entrapment: Eye Witness Accounts (C)

Three min ers who ei ther wit nessed or were involved in a roof fall accident discuss their experiences, thoughts and re newed re spect for complying with safe work procedures and maintaining roof support systems. These video tapes are designed to motivate min ers to be more aware of roof conditions and to comply with roof control plans.

This program consists of three (3) video tapes, one for each interview, with accompanying instructions to promote interaction of the viewers.

MSHA 1992

Title/Catalog No.

Eyewitness Account:

Dave Garry (VC 865) 15 min

Eyewitness Account:

Larry Strayer (VC 866) 14 min

**Eyewitness Account:** 

Dave Murone (VC 867) 10 min

Price: \$8.00 each title

#### Roof Fall Entrapment: Survivors' Accounts (C)

Two min ers who were in volved in a roof fall ac cident dis cuss their experiences, thoughts, and renewed respect for complying with safe work procedures and main taining roof support systems. These video tapes are designed to motivate miners to be more aware of roof conditions and to comply with roof control plans. This program consists of two interviews on one video tape.

MSHA 1993

Cat. No: VC 837

Survivors' Account:

Donzil Cutlip 13 min

Larry Clevenger 14 min

Price: \$8.00

#### Safety Around Power Lines

Provides visual ex am ples of the types of power and communicationline haz ards en coun tered in the min ing in dus try. Elec tric lines, high volt age drag cable, power stations, telephone company lines, and communication cables are demonstrated. The

differ ences in these types of lines, haz ards presented, and in structions for seeking help are covered.

Florida Dept. of Environmental Protection 1994 13 min

Cat No: VC 812 Price: \$8.00

### Safety Issues in Deep Cut Mining (Small Mines Tech Transfer)

This video ad dresses the ergo nomic problems in deep cut min ing (cuts greater than twenty feet) and what actions can be taken to help find and to help for mulate solutions in solving these problems.

BuM 1995 17 mir

Cat No: VC 939 Price: \$8.00

### Safety on or Near the Water (MNM)

This video discusses the hazards of working on or near the water and the precautions that need to be taken to protect the work ers in this situation.

MSHA 1998 14 min

Cat No: VC 925 Price: \$8.00

### Safety on the Move: Truck Haulage Safety (C/MNM)

The camera conveys at mosphere and move ment around an open pit mining oper a tion. Shows huge haul age trucks in action. Depicts how truck oper a tors encounterdifficult, dangerous, emergency driving situations while performing as signed duties. Points out existing and potential haz ards of truck haul age by reenactment of some of the most frequently-occur ring accidents. Explains causes of these accidents and out lines corrective steps neces sary to prevent their recur rence. Stresses on-the-job safety training and a truck driver's personal safety responsibility throughout.

MSHA Rev 1995 13 min

Cat No: VC 828 Price: \$8.00

Safety Procedures in Kiln Rebricking (MNM)

Kiln rebricking is a very dan ger ous job. Shot on location, this pro gram emphasizes haz ard recognition and safe job procedures.

MSHA 1986 16 min

Cat No: VC 895 Price: \$8.00

Safety Standards for Roof/Face/Rib Support (C)

De scribes in de tail the major changes be tween the old and new roof con trol stan dards. New sec tions, vari a tions of old sec tions and de le tions will be discussed. In cludes printed training guide, "Training Guide for Safety Standards for Roof/Face/Rib Support" which reinforces specific changes.

MSHA 1988 61 min

Cat No: VC 930 Price: \$8.00

#### Scaling

Scaling, the taking down of loose material from the roof, face and rib in hard rock mining. This vid eotape will remind you of some of the safety procedures and common sense practices to use during scaling.

MSHA 1996 10 ½ min

Cat No: VC 836 Price: \$8.00

#### Scientific Look At Back Belts

This video discusses the scientific approach to the benefits, and nonbenefits, as sociated with wearing back belts.

BuM 1995 16 min

Cat No: VC 937 Price: \$8.00

### Seat Belt Success Story - Part I - By Terry Sanders (C/MNM)

This video tells of an accident that occurred in 1980, when an off-road truck lost its power and brakes and went down a moun tain back ward. The wreck completely de stroyed the truck, and the

driver states that he is alive be cause he was wearing his seat belt.

MSHA 1996 5 min

Cat No: VC 833 Price: \$8.00

### Seat Belt Success Story - Part II - (The Roger Newman Story) (C/MNM)

This video tells how a bulldozer operator survived a 160 foot fall from a highwall while buck led in with his seat belt. He mi rac u lously walked away from theaccident.

MSHA 1996 7 min

Cat No: VC 834 Price: \$8.00

### Self-Contained Self-Rescuers (SCSRs), An Efficient Method for Donning (C)

Pro gram shows a method for rap idly don ning a self-contained self-res cuer (SCSR). Miners who have lit tle or no hands-on ex pe ri ence can quickly don an SCSR af ter learn ing the po si tion and sim plified tech nique shown in this pro gram. In di vid ual videotapes are available for self-rescuers manufactured by CSE, Draeger, and Ocenco. Each videotape in cludes printed in structor's manual, "An Efficient Method for Donning the Self-Contained Self-Rescuer (SCSR)," which care fully explains how to evaluate and conduct training activities in this SCSR donning method.

MSHA 1987

Title/Catalog No.

CSE SR-100 (VC 883) 8 min
Draeger (VC 912) 9 min
Ocenco (VC 914) 12 min

Price: \$8.00 (each title)

# Silicosis: A Preventable Disease (MNM)

An employee's questions about the health effects of sil ica dust exposure are an swered.

MSHA 1999 19 min

Cat No: VC 929 Price: \$8.00

#### Slips, Trips, and Falls

Various types of slip/trip/fall accidents are depictedat sur face mines, plants, on dredges, and in of fices. This video stresses the im por tance of work ers think ing safety - and be ing alert, ob ser vant, and cautious. Spe cial em pha sis is placed on proper climb ing procedures (ladders, stair ways); good house keeping (clean ing spills, re moving trip ping objects); and following company safety rules. Con cluding mes sage is that the best way to pre vent slip, trip, and fall ac cidents is through effective safety training, combined with safe work practices.

Florida Dept. of Environmental Protection 1994 9 min

Cat No: VC 851 Price: \$8.00

#### Statistical Profile of Underground Coal Mines: **Differences Associated With Mine Size**

This video shows statistics for accident rates; characteristics of injured employees; and production and employment statistics for under ground coal mines. The Bu reau of Mines used in for ma tion from two different time periods, 1989-1991 and 1978-1980. Com paring these two time pe ri ods allows us to see what ma jor changes took place in un der ground coal mines dur ing the 1980s.

> BuM 1995

Cat No: VC 805 Price: \$8.00

Stay Alert and Stay Alive (Truck Accident Awareness) (C) VC 860

This video tape is no longer available.

### Stay Calm and Stay in the Cab!

In this video you'll hear how a bull dozer op er a tor felt while he was bur ied in a surge pile cav ity, and how his company's safety efforts, before and during the accident, contributed to his safe recov ery.

> MSHA 1999 12 min

Cat No: VC 940 Price: \$8.00

### Stay Out of the Danger Zone (C)

This video describes several fatalities that occurred with the use of remote con trolled con tin u ous min ing ma chines. You will also hear from a survi vor of a contin u ous mining machine accident as he de scribes his in ju ries and stresses the im portance of stay ing out of the dan ger zones of this type of mining equipment.

> MSHA 1999 12 min

Cat No: VC 945 Price: \$8.00

#### **Stop Silicosis**

This film (copied to video tape) was produced by the U.S. De part ment of La bor in 1938 and fea tures an in tro duction by then Secretary of Labor Frances Perkins. This short black and white film presents the causes of sili co sis and explains how the disease can be pre vented. "Stop Silico sis" was shown as part of a Fed eral sili cosis-pre vention campaign that was initiated by Secretary Perkins.

USDOL 1938

Cat No: VC 826 Price: \$8.00

### Storage, Transportation and Handling of Compressed Gases (C/MNM)

De scribes the ideal storage conditions and the safest means of trans porting and han dling com pressed gas cylinders in the mining en viron ment.

> MSHA 1989

Cat No: VC 881 Price: \$8.00

### Substance Abuse: Is It Our Problem? C/MNM)

Substance abuse poses problems in the work place. This program examines substance abuse from "the toolroom to the boardroom." It also in cludes material about Employee As sistance Programs (EAPs) and related programs.

MSHA 1986 34 min

Cat No: VC 901 Price: \$8.00

#### Surface Coal Truck Haulage Fatalities of 1993

This video discusses the seven surface coal truck haulage fatalities of 1993 and suggests possible safety methods and practices that can help prevent the occurrence of similar accidents.

MSHA Oct 1994 12 min

Cat No: VC 835 Price: \$8.00

### The Time Was Right! Mary Lou George (C/MNM)

From miner's daugh ter to MSHA mine in spector—Mary LouGeorge tells her in spiring story. She advises to watch out for others and your self; never lose re spect for the mine; and neverfor get about safety.

MSHA 1998 12 min

Cat No: VC 923 Price: \$8.00

### Think "Quicksand": Safety Around Bins and Hoppers (C/MNM)

This video tape shows how material in stock piles, storage bins and hop pers can act like quick sand – often with fatal results. Encour ages work ers to follow safe and correct oper at ing procedures to avoid be ing trapped or buried alive.

NOTE: Span ish ver sion avail able on VHS vid eotape from The University of Texas at Austin (see page 1). This video tape is a taped ver sion of the slide-tape program.

MSHA 1987 10 min

Cat No: VC 916 Price: \$8.00

#### **Timbering in Underground Anthracite Mines**

Tim bering is the most com mon roof sup port method used in undergroundanthracite mines. The system of tim ber ing is gov erned by the char ac ter of the top and bot tom, thick ness of the coal vein, pitch of the coal vein, life of the entry, haul age system, and the operator's approved roof control plan. This videotape dem on strates the fundamentals and char acteristics used in in stalling typical tim ber sets: single prop, post and bar (two-piece sets), and "double tim ber" (three-piece sets).

MSHA 1994 54 min

Cat No: VC 807 Price: \$8.00

#### Title 30 CFR Part 50 (C/MNM)

Designed to as sist oper a tors, contractors and others in coal or metal/non metal mining whose duties in clude compiling Form 7000-1, the Mine Accident, Injury, and Ill ness Report.

MSHA 1987 29 min

Cat No: VC 915 Price: \$8.00

#### Truck Haulage Safety Series (C/MNM)

The following seven video tapes were produced as a series; how ever, they can be pur chased individually.

Brakes, Grades, and Runaways – Highway Trucks
Re views im por tant prin ci ples of haul road design and main te nance, braking system in spection and main te nance, and driver procedures for han dling high way truck run aways. Topics covered in clude: road design; road main te nance; berms; brakes; and runaways.

MSHA 1995 18 min

Cat No: VC 873 Price: \$8.00

Brakes, Grades, and Runaways – Off-Road Trucks Re views im por tant prin ci ples of haul road de sign and main te nance, braking system in spection and main te nance, and driver pro ce dures for han dling off-road truck run aways. Topics cov ered in clude: road de sign; road main te nance; berms; brakes; and runaways.

> MSHA 1995 18 min

Cat No: VC 872 Price: \$8.00

 Highway Haulage Truck Inspection Conducted by MSHA Inspectors

Presents a typical sequence of procedures followed by an MSHAinspectorduringexamination of a high way haul age truck. Topics cov ered include: in spection lo cation; cab in spection; safety appliances; paperwork; steering system; handholds and steps; wheels and rims; suspension components; brakes and braking systems; exhaust system; and in spect ing the frame of the bed or trailer.

> MSHA 1995 18 min

Cat No: VC 853 Price: \$8.00

• Inspection of Off-Road Haulage Trucks by an MSHA Inspector

Presents a typical sequence of procedures fol lowed by an MSHA inspectorduring examination of an off-road haul age truck. Topics covered include: inspection location; fluid- carry ing lines and steer ing com po nents; sus pension com po nents; tires and wheels; truck bed; lights and mount ings; cab; safety ap pli ances; and brakes and braking system parts.

MSHA 1995 13 min

Cat No: VC 850 Price: \$8.00

 Pre-Operation Inspection of Highway Haulage Trucks by the Driver

De scribes a typical se quence of in spection proce dures followed by drivers who oper ate high way haul age trucks. Topics cov ered in clude: in spection lo ca tion; un der-the-hood check; tires and wheels; steering components; suspension compo nents; trailer or bed frame; cab; safetyappliances; and brakes and braking systems.

MSHA 1995 10 min

Cat No: VC 863 Price: \$8.00

 Pre-Operation Inspection of Off-Road Haulage Trucks by the Driver

De scribes a typical se quence of in spection procedures followed by drivers who oper ate off-road haulage trucks. Topics covered in clude: in spection lo cation; per sonal protective equipment; fluid-car ry ing lines; truck bed; lights and mountings; cab; safety ap pli ances; steering; and brakes and braking systems.

> MSHA 1995 16 min

Cat No: VC 855 Price: \$8.00

• Visibility and Communications: Off-Road and

Highway Trucks (C/MNM)

This video dis cusses the vis i bil ity and com muni ca tion prob lems as so ci ated with off-road and highway haul age trucks. Topics cov ered in clude: driver aware ness; good communication systems; night driving; weather conditions; road de sign and main te nance; traf fic con trols; truck lights, wip ers, and alarms; blind areas; and additional lighting.

> MSHA 1996 18 min

Cat No: VC 814S (Spanish version) VC 869 (English version)

Price: \$8.00

### **Underground Haulage Hazards (MNM)**

Pres ents a broad over view of some of the more com mon fac tors which cause (or con trib ute to) ac cidents in volving both track and off-track haul age. Points out need for suffi cient safety and task training, stay ing alert, learn ing to rec og nize spe cific job hazards, cor recting or reporting all dan gerous con ditions, following safe haulage practices and obeying com pany safety rules and reg u la tions. Uses sim ulated haul age ac ci dents (based on ac tual oc currences) which real is tically reen act haulage accidents.

> MSHA 1983 12 min

Cat No: VC 875 Price: \$8.00

#### **Underground Salt Mine Safety Series (MNM)**

A nine-part series de signed to in crease min ers' awareness of potential haz ards as so ci ated with mining con ditions, oper a tions and equip ment. The se ries stresses proper safety practices and pre cautions for avoid ing haz ards. This pro gram was de veloped in cooperation with the Salt Institute and contains material use ful for many types of un der ground metal/non metal mines.

NOTE: These video tapes are a taped version of the slide-tape program.

MSHA 1987

#### Title/Catalog No.

Avoiding Electrical Hazards in Mines	
(VC 910)	15 min
Cleanup and Housekeeping (VC 908)	9 min
Ground Control and Ventilation Plans (VC 909)	9 min
Hazard Recognition (VC 907)	14 min
Health Hazards (VC 906)	10 min
Introduction to Work Environment (VC 902)	6 min
Mine Maps/Emergency Evacuation (VC 905)	10 min
Transportation and Communication (VC 903)	8 min
Use of Explosives (VC 904)	10 min

Price: \$8.00 (each title)

### What Am I Worth? (C/ MNM)

Produced in cooperation with the Mining Industry Committee on Substance Abuse. Shows miners who used substances on their shifts, the impact of such be havior on their jobs and lives, and the effect of help they received from their company's employee as sistance programs.

MSHA 1990 38 min

Cat No: VC 884 Price: \$8.00

### What Does the Term Silicosis Mean to You? (C/MNM)

This video is designed to raise the aware ness of silicosis in the work place and to stim u late a dis cussion of the dis ease.

MSHA 1998 13 min

Cat No: VC 913 Price: \$8.00

### What You Can't See Could Kill Someone! (C/MNM)

Blind spots around haul trucks is a majorproblem for mining operations. To combat this problem, MSHA asked companies to put cameras on their trucks on an experimental basis. This video contains in terviews with drivers who used cameras on their trucks and the safety benefits they received.

MSHA 2000 17 min

Cat No: VC 951 Price: \$8.00

### Winter Alert (C)

This video de scribes the four lines of defense to guard against mine ex plo sions. The four interrelated lines of defense are ven tillation, ex aminations, ig ni tion sources, and rock dust ing. Proper at ten tion to each of these ar eas can greatly re duce the chances of an ex plo sion at your mine.

MSHA 2000 13 min

Cat No: VC 953 Price: \$8.00

### Winter Alert: The Sonman Mine Disaster (C)

This winter alert video gives a historical review of the Sonman Mine di sas ter of the 1940s by re-cre ating un der ground scenes that dra matize the di sas ter for a lasting im pression.

MSHA 1998 11 min

Cat No: VC 911 Price: \$8.00

This section is an alphabetical listing of the available printed programs. These programs fall into several different categories. The following is a list of the various categories used in this section, along with the letter code used.

CI Course of Instruction OT Other Material PI Programmed Instruction Book

#### Abandoned Mines Booklet (C/MNM)

High lights dan gers posed to peo ple by aban doned mine sites. Two book lets to a cus tomer, please.

MSHA 1999 43 pp

Cat No: OT 7

Price: Free of charge

### Accident Analysis and Problem Identification for Coal Mines

Introduction to Accident Analysis and Problem Identification (AAPI), a method for exam in ing and correcting accident problems in coal mines.

#### Books

Instructor's Guide 81 pp Student's Text 79 pp

MSHA Rev 1999

Cat No: IG 67 (Instructor's Guide)

IG 67a (Student Text)

Price: Free of charge (1 book/guide)

\$5.00 (each additional copy)

### Accident Analysis and Problem Identification for Metal/Nonmetal Mines

In tro duction to Accident Analysis and Problem Identification (AAPI), a method for examining and correcting accident problems in metal/non metal mines. **Books** 

Instructor's Guide 81 pp Student's Text 79 pp

MSHA Rev 1999

Cat No: IG 68 (Instructor's Guide)

IG 68a (Student's Text)

Price: Free of charge (1 book/guide)

\$5.00 (each additional copy)

#### Accident Investigation (C/MNM)

Regulations specify that certain accidents must be in vesti gated. This man ual deals with the tech ni cal as pects of accident in vestigations. It in cludes: Accident Prevention, Investigative Procedures, Equipment and Supplies, Fact Finding, Interviews, Problem Solving Techniques, and Report of Investigation.

**Note to Trainer:** Although written for mine accidents, principles described may be applied in other industries.

MSHA Rev 1990 38 pp

Cat No: SM 10

Price: Free of charge (1 copy) \$2.00 (each additional copy)

#### Accident Prevention (C/MNM)

De fines and de scribes ac ci dents and causes of acci dents. Ex plains what is in volved in effective accident pre vention pro grams in mining. In cludes a study of acci dent causes at all lev els and the means of deal ing with those causes.

MSHA Rev 1999 38 pp

Cat No: SM 4

Price: Free of charge (1 copy) \$2.00 (each additional copy)

#### **Advanced Mine Emergency Operations** (C/MNM)

These materials were designed for use in the Mine Simulation Laboratory to conduct Mine Emergency Response Disaster exercises. The materials can be modified to be used in other simulated settings. Includes an In structor's Guide for conducting the exer cise and a Stu dent's Text for those who will be performing the exercise. **NOTE**: IG 16, Principles of Mine Res cue, is a part of this pro gram. Copies need to be or dered when CI 4 is or dered.

> MSHA 1992

#### **Books**

Instructor's Guide (C) 51 pp Student's Text (C) 7 pp Cat No: CI 4 (Instructor's Guide-C) Cat No: CI 4a (Student's Text-C) Price: \$4.00 (Instructor's Guide) \$2.00 (Student's Text)

#### Advisory Committee Recommendations to Eliminate Black Lung and Silicosis (C)

On Jan u ary 31, 1995, Sec re tary of Labor Rob ert B. Reich established the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers. The key Committeerecommendations, which will help direct MSHA's efforts to eliminate coal mine dust-re lated lung dis ease, are sum marized un der eight topic head ings in this pam phlet. Note: There is a compan ion card (HH-8) to this pam phlet. See "Pocket Cards" sec tion on how to order.

> MSHA 1997

Cat No: OT 25

Price: Free of charge

### Alcohol and Drug Abuse Manual, Mining Industry (C/MNM)

A collection of practical information on alcoholand drug abuse in the work place. In cludes bibliographies of sources and materials on Employee As sistance Programs (EAP's). Can be used in con nec tion with videotape Sub stance Abuse - Is It Our Problem? (VC 901)

MSHA 1986 42 pp

Cat No: OT 8

Price: Free of charge (1 copy) \$3.00 (each additional copy)



This publicationaddresses under ground powered haul age lost time ac ci dents that oc curred during the pe riod Jan u ary 1990 through De cember 1999 in volv ing shut tle cars, scoops, track-mounted equip ment, mo bile haul age equip ment, and con veyor belts. Although min ing meth ods and equip ment vary greatly in coal and metal/non metal mining, the similarities of haul age equip ment and the meth ods of operation are similar; there fore, the study in cludes both coal and metal/nonmetalpoweredhaulageaccidents. This report iden ti fies the major factors that led to these accidents, and recommends accident prevention meth ods to re duce the fre quency of these ac cidents.

> MSHA 2000 18 pp

Cat No: OT 43

Price: Free of charge

#### Annual Refresher Training Games (C)

Compilation of guestions and an swers, various game for mats and guide lines for us ing games in training. The guide is designed to be used in an nual re fresher training. Topics in clude:

- 1. Roof and Rib Control
- 2. Self-Rescue Devices
- 3. Communication
- 4. **Respiratory Devices**
- 5. **Explosives**
- 6. Permissibility
- 7. **Accident Prevention Techniques**
- 8 Health
- Barricading
- 10. First Aid
- 11. Cardiopulmonary Resuscitation
- 12. Haulage and Transportation
- 13. Recognition and Avoidance of Electrical Hazards
- 14. Gases
- 15. Ventilation
- 16. Surface Mining17. Miscellaneous

**MSHA** 1989 610 pp

Cat No: IG 79 Price: \$9.00

#### **Anthracite Mining Workbook**

This work book, in the pro grammed instruction format, dis cusses the various as pects of Anthracite mining: the anthracite coal fields of Pennsyl vania; mine development; the four methods of mining (full-box breast, open breast, slant breast, and longhole methods); ven tila tion; and roof and rib control.

MSHA Rev 1999 59 pp

Cat No: PI 13

Price: Free of charge (1 book) \$3.00 (each additional copy)

#### Back Injuries in the Mining Industry

Deals with back in ju ries in the coal and metal/non-metal min ing in dustry. It ad dresses back in jury statistics, anatomy and common back problems, the causes and corrective actions for back in jury prevention, and recommendations for developing a program for the prevention of back in juries.

MSHA Rev 2000 26 pp

Cat No: SM 24

Price: Free of charge (1 copy) \$2.00 (each additional copy)

### Bins and Hoppers Safety Awareness Program (C/MNM)

Designed for train ers of coal and metal/non metal mine per son nel. Covers the safe han dling of ma terials around bins and hoppers, working safely around bins and hoppers, the prevention of entrapment, and res cue in the event of an entrapment.

The program contains eight sections:

- 1. Bins and Hoppers Related Law
- 2. Entrapment of Miners
- 3. Development of Safe Work Methods Around Bins and Hoppers
- 4. General Bins and Hoppers Safety/Technical Information
- 5. Abstracts of Bin and Hopper Accidents
- 6. Bins and Hoppers Safety Awareness Factors to Utilize in a Training Session
- 7. Key Safety Awareness Points to Remember When Involved with Bins and Hoppers
- 8. Illustrations and Abstracts of Bin and Hopper Fatalities

MSHA 1988

83 pp

Cat No: IG 66

Price: Free of charge (1 book) \$4.00 (each additional copy)

### Blaster's Training Program for Independent Contractors (C/MNM)

De signed to train in de pend ent con trac tors in the safe use and application of explosives. The training pack age in cludes: Leader's Guide, Knowl edge Checklist for Supervisors, Knowl edge Checklist for Trainees, an OJT Check list, and a Stu dent Workbook. A multi-part video tape covers the following topics: Safety in Blasting, Buckle Up on the Job, Ground Control in Surface Mining (Coal), Surface Blasting in Metal and Nonmetal Mines, Quarry Safety, Safety in Surface Coal Mining, and Haz ard Recognition and Avoid ance in Surface Coal Mining.

Note: Separate tapes on a single subject are not available.

MSHA Rev 1997 194 pp

Cat No: IG 81

Price: Free of charge (1 book) \$5.00 (each additional copy)

\$8.00 (1 videotape)

### Blasting Hazard Awareness: Surface and Underground Coal Mines

These two pro grams cover blast ing haz ard rec og nition and avoid ance in and around un der ground and sur face coal mines.

Surface Coal Mine Blasting

Hazard Awareness 108 pp

**Underground Coal Mine** 

Blasting Hazard Awareness 112 pp Please specify pro gram(s) wanted when or dering.

MSHA Rev 1996

Cat No: IG 71 (Surface)

IG 72 (Underground)

Price: Free of charge (1 book) \$4.00 (each additional copy)

### Blasting Hazard Awareness: Surface Metal and Nonmetal

Covers blasting haz ard recognition and avoid ance in and around surface metal and non metal mines.

MSHA Rev 1996 100 pp

Cat No: IG 73

Price: Free of Charge (1 book) \$4.00 (each additional copy)

### Blasting Hazard Awareness: Underground Metal and Nonmetal

Covers blasting haz ard recognition and avoid ance in and around un der ground metal and non metal mines.

MSHA Rev 1996 139 pp

Cat No: IG 74

Price: Free of Charge (1 book) \$4.00 (each additional copy)

#### Blasting Requirements — Surface Coal

This training package of lesson plans, hand outs, visuals, and student text is designed to train entry level coal mine in spectors and their super visors. Topics in clude: properties and character is tics of explosives; explosives magazines; vehicles used to transport explosives; person nel who handle explosives; handling and use of explosives; and blasting agents. Course content emphasizes haz ard recognition and safe work practices, and is keyed to MSHA regulations.

#### **Books**

Instructor's Guide 395 pp Student's Text 25 pp MSHA 1994

MSHA 1994 Cat No: Cl 21 (Instructor's Guide)

CI 21a (Student's Text)
Price: \$7.00 (Instructor's Guide)

\$2.00 (Student's Text)

#### Blasting Requirements—Underground Coal

This train ing pack age of les son plans, hand outs, visuals, and student text is designed to train entry level coal mine in spec tors and their super visors. Topics in clude: permissible explosives; qualified per sons; ex plo sives and blast ing equip ment; trans portation of explosives and detonators; magazines; sheathed explosives; bore holes; preparation before blasting; primers; multiple-shot blasting; stemming; blasting circuits; methane concentration and tests; fire procedures; examination after blasting; misfires; and damaged or deteriorated explosives and detonators. Course content emphasizes haz ard recognition and safe work practices, and is keyed to MSHA regulations.

#### Books

Instructor's Guide 263 pp Student's Text 31 pp

MSHA 1994

Cat No: CI 24 (Instructor's Guide)

CI 24a (Student's Text)

Price: \$6.00 (Instructor's Guide) \$2.00 (Student's Text)

### Bleeder and Gob Ventilation Systems (C)

This publication is student hand out materials used in the Bleeder and Gob Ven tilation Systems course. The course applies to under ground coal mining and is primarily of interest to ventilation specialists, safety in spectors, and super visors. Materials include a textbook containing information on ventilation principles; bleeder system design, approvals, in spection and examination, and evaluation; and illustrations of bleeder systems. Ventilation regulations, case study in formation, and other materials are also in cluded in the pack age.

MSHA 1996 359 pp

Cat No: CI 42

Price: Free of charge (1 copy) \$6.00 (each additional copy)

### Bloodborne Pathogens: A Guide for the Mining Industry

This guide contains information about the risk of occupational exposure to bloodborne patho gens and how mine oper a tors can reduce this risk.

MSHA 2000 24 pp

Cat No: IG 44

Price: Free of charge (1 copy) \$2.00 (each additional copy)

#### **Coal Country**

This computerprogram, developed for elementary school chil dren, will help them learn about coal formations, deposit lo cations, mining techniques, and common uses of coal in every day life. The program is avail able on five 3 1/2-inch computer diskettes.

BuM 1994

Cat No: OT 9

Price: \$9.00 (5 computer diskettes)

#### Coal Mine Maps

Re views uses and im por tance of coal mine maps; discusses the different mandatory maps; and describes how to gather data, pre pare maps and interpret information on maps.

MSHA Rev 1990 24 pp

Cat No: SM 12

Price: Free of charge (1 copy) \$2.00 (each additional copy)

#### **Coal Mining**

Gives an over view of coal min ing. It be gins with the or i gin and na ture of coal, pro gresses through under ground and sur face min ing meth ods, train ing, and mine hazards, and ends with the uses of coal. In cludes a glos sary of com mon min ing terms.

MSHA Rev 1999 29 p

Cat No: SM 1

Price: Free of charge (1 copy) \$2.00 (each additional copy)

#### **Coal Preparation**

This in struc tor guide is one of a se ries of six books cover ing min ing sys tems. It in tro duces the major steps in pre par ing coal. Some of the subjects covered in clude: preparation plant systems, de livery to the plant, crushing and breaking, sizing, washing, dewatering and drying, and storage and transportation of coal.

MSHA 2000 47 pp

Cat No: IG 54 Price: \$3.00

### Code of Federal Regulations, Title 30, via Computer Linkup

The mining community can gain quick access to currentregulations, program information bulletins, policy memos, and other data on MSHA's home page on the Internet at http://www.msha.gov. Also, copies may be purchased from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 Telephone: 202/512-1800

Fax: 202/512-2233

#### Combustible Materials and Rock Dusting (C)

Designed to train the Federal Coal Mine Inspector on the dan gers in her ent with coal dust. It is intended to de scribe the haz ards to show the in spector how to iden tify haz ard ous loose coal, and to train the in spector how to make rock dust sur veys, and how to take samples.

#### Books

Instructor's Guide 90 pp Student's Text 41 pp

MSHA 1992

Cat No: CI 3 (Instructor's Guide)

CI 3a (Student's Text)

Price: \$3.00 (Instructor's Guide)

\$2.00 (Student's Text)

## Compliance Guide to MSHA's Occupational Noise

MSHA's re vised noise stan dard be came effective on Sep tem ber 13, 2000. This com pli ance guide is pro vided in a question and an swer for mat. The information pro vided in this guide is in tended to assist the mining in dustry in complying with the revised noise standard.

MSHA 2000 24 pp

Cat No: IG 33

Price: Free of charge

#### Coping with Substance Abuse in Mining

Deals with sub stance abuse in the mining in dustry, which is a reflection of the experience of American in dustry in general. The manual puts forth a five-part strategy for control ling sub stance abuse at the work place; establish ment of a written sub stance abuse policy; super visory training; employee education and aware ness; an employee as sistance program; and drug testing, as appropriate.

MSHA 1991 36 pp

Cat. No: SM 25 (English Version)

SM 25-S (Spanish Version)

Price: Free of charge (1 copy)

\$2.00 (each additional copy)

#### Degraded Image Hazard Recognition (C)

The goal of this pro gram is to im prove the abil ity of min ers to rec og nize haz ards in their dan ger ous work en vi ron ment, and thereby, to re duce ac cidents. The pro gram is based on re search conducted by the U.S. Bu reau of Mines (now NIOSH) in con junc tion with the II li nois De part ment of Nat ural Re sources and II li nois East ern Community College. A study has found that miners trained with this method have shown a greater improvement in their haz ard recognition skill level as compared to traditional methods.

NIOSH 1997 8 pp

Cat No: IG 1

Price: \$12.00 (includes 1 book, 10 slides,

and a videotape)

### Don't Be the Fall Guy!

This book let is part of the PROP (Pre ventive Roof/Rib Out reach Pro gram). It is designed to alert miners to the haz ards presented in underground coal mining from falls of roof, face, and ribs. This book let describes the sources of roof/rib hazards and provides practical information to avoid injuries from what has been his torically the great est danger to under ground miners. Sources of tech nical as sis tance on roof control and other health and safety training resources are included.

MSHA 2000 25 pp

Cat No: OT 44

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Draeger BG 174A Breathing Apparatus, Using the

Designed to show, step-by-step, the proper use of this mine res cue ap para tus. A PowerPoint (PPT) pre sen ta tion on a CD and il lus tra tions for making transparencies are included. The CD includes a PPT viewer so that the pre sen ta tion can be used with any version of PPT or none at all. Note: System requirements for viewer are – 486K or higher processor; Win 95, 98, or 2000 sys tem, or Win NT Work station 3.51 (with Ser vice Pack 5.x or later),

or NT 4.0; 9MB hard disk space; and VGA or higher resolution.

MSHA Rev 2000 31 pp

Cat No: IG 21

Price: Free of charge (1 book) \$ 2.00 (each additional book)

\$10.00 (1 book, CD)

### Draeger OXY-SR 60B Self-Contained Self-Rescuer

Designed to en sure proper use of the de vice during a mine emergency.

MSHA Rev 1999 33 pp

Cat No: IG 39

Price: Free of charge (1 book) \$10.00 (1 book, 32 slides)

# Dust — What You Can't See CAN Hurt You! (C)

This book let de scribes the haz ards as so ci ated with dust ex po sures in coal mining and provides miners and mine operators with information on a variety of methods of preventing or reducing these exposures.

MSHA 1998 24 pp

Cat No: OT 4

Price: Free of charge

### Electrical Hazards (C/MNM)

Elec tric ity is used to power most min ing equip ment (in un der ground mines, in sur face min ing drill ing and loading operations, in preparation plants and in mills). Man ual covers haz ards of elec tric ity. Concen trates on elec trical shock and elec trical arcs. Presents methods of control ling these haz ards.

MSHA Rev 2000 52 pp

Cat No: SM 9

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Electrical Hazards Awareness Program (C/MNM)

Covers electrical haz ards recognition and avoidance in and around coal and metal/non metal oper ations. The program contains twelve in dependent sections, each contain ing question and an swerexercises:

- A. Introduction to Electricity
- B. Statistics
- C. Underground Electrical Equipment (script for slide-tape program)
- D. Permissibility
- E. Mine Electrical Substations
- F. Grounding
- G. Methane Monitors
- H. Battery and Battery-Charging Safety
- I. Overhead Power Line Hazards
- J. Trailing Cables (script for slide-tape program)
- K. Trolley Wires and Feeder Wires Underground (script for slide-tape program)
- L. Electrical Fatalities

MSHA 1988 391 pp

Cat No: IG 65

Price: Free of charge (1 book, 12 sections)

\$ 7.00 (each additional copy)

\$15.00 (Section C – 52 slides, 1 tape) \$15.00 (Section J – 54 slides, 1 tape) \$13.00 (Section K – 42 slides, 1 tape)

### Equipment Guarding, MSHA's Guide to (C/MNM)

Designed to as sist in dustry, labor, and MSHA inspectors in obtaining unifor mity in me chanical safe guarding. Basic principles of guarding are discussed. Various techniques are illustrated (with brief written explanations).

MSHA Rev 2000 36 pp

Cat No: OT 3

Price: Free of charge (1 book) \$2.00 (each additional copy)



This publication presents in formation on the 74 fatalities involving crushed stone and sand and gravel oper a tions from January 1994 through December 1999. Small mines in this publication refer to mines with 50 or fewer employees. This publication in cludes statistics for the fatalities as well as abstracts, illustrations, and best practices.

MSHA 2000 73 pp

Cat No: OT 41

Price: Free of charge



This publication presents information on fatalities involving construction fatalities that occurred in coal mining operations from January 1996 through December 1999. The fatalities in this report consist of accidents involving construction, maintenance, and repair. It in cludes statistics for all of the fatalities, as well as abstracts and illustrations. From January 1996 through December 1999, 132 miners and contractors died at coal oper a tions. Of the 132 fatalities, 28 fatalities involved construction.

MSHA 2000 12 pp

Cat No: OT 35

Price: Free of charge

# Fatal Accidents Involving Construction, Maintenance and Repair at Metal/ Nonmetal Mines, 1996-1999

This publication presents in formation on construction fatalities that occurred in metal/non metal mining operations from January 1996 through December 1999. The fatalities in this report consist of accidents in volving construction, main tenance, and repair at metal/nonmetal mining operations. From January 1996 through December 1999, 213 miners died at metal/non metal operations. Of the 213 fatalities, 84 fatalities in volved construction.

MSHA 2000 20 pp

Cat No: OT 36

Price: Free of charge



#### Fatal Accidents Involving Contractors at Coal and Metal/Nonmetal Mines, 1996-1999

This publication presents information on fatalities involving con tractors that occurred in coal and metal/ non metal op er a tions from Jan u ary 1996 through De cember 1999. It in cludes statistics for all of the fatalities, as well as ab stracts and illus trations. From Jan u ary 1996 through De cember 1999. 346 min ers and con trac tors died at coal and metal/non metal op er a tions. Of the 346 fa tal i ties, 86 fatalities involved contractors.

> **MSHA** 1999 26 pp

Cat No: OT 37

Price: Free of charge



#### Fatal Accidents Involving Conveyors at Coal and Metal/Nonmetal Mines, 1990-1999

This publication presents in formation on the 15 fatalities that occurred at coal oper ations and the 31 fa talities that occurred at metal and nonmetal operations from Jan u ary 1, 1990, through December 31, 1999, as a re sult of con veyor re lated ac cidents. This publication includes statistics for the fatalities as well as ab stracts, illustrations, and best practices.

> MSHA 2000 61 pp

Cat No: OT 40

Price: Free of charge



#### Fatal Accidents Involving Drowning at Coal and Metal/Nonmetal Mines, 1996-1999

This publication presents information on fatalities involving drownings that oc curred in coal and metal/nonmetalminingoperations from January 1996 through December 1999. It includes statistics for all of the fa talities, as well as ab stracts and illustrations. The drowning fatalities in this report come under several different accident classifica tions. These classifications are slip or fall of person, machin ery, pow ered haul age, elec tri cal, and "other." From January 1996 through December 1999, 346 min ers and con trac tors died at coal and metal/non metal op er a tions. Of the 346 fa tal i ties, 17 fatalities involved drowning.

> **MSHA** 2000 14 pp

Cat No: OT 34

Price: Free of charge



### Fatal Accidents Involving Independent Contractors at Coal Mines, 1996-1999

This publication presents in formation on the 81 fatalities involving independent contractors that occurred in coal mining oper ations from January 1, 1996, through De cember 31, 1999. This publication in cludes statis tics for the fatalities as well as abstracts, illustrations, and best practices.

> **MSHA** 2000 27 pp

Cat No: OT 38

Price: Free of charge



### Fatal Accidents Involving Independent Contractors at Metal and Nonmetal Mines, 1996-1999

This publication presents in formation on the 67 fatalities involving independent contractors that occurred in metal and nonmetalminingoperations from Jan u ary 1, 1996, through De cember 31, 1999. This publication in cludes statis tics for the fatalities as well as ab stracts, il lus trations, and best practices.

> MSHA 2000 47 pp

Cat No: OT 39

Price: Free of charge



### Fatal Accidents Involving Roof Falls in Coal Mining, 1996-1998

This publication presents information on fatalities involving roof and rib falls that oc curred in coal miningoperations from Jan u ary 1996 through Decem ber 1998. Dur ing this pe riod, 36 min ers died at coal operations from accidents classified as roof falls. This publicationincludes statistics for thefatalities as well as ab stracts, best practices, and illustrations.

> MSHA 1999 33 pp

Cat No: OT 42

Price: Free of charge

### Fatal Illustration Program (C/MNM)

High lights fa tal ac ci dents that oc curred in coal and metal/nonmetal mines and alerts miners to dan gers around mines and how po ten tial ac ci dents can be pre vented. Flex i ble and adapt able to many different training sit u ations (new miner, an nual refresher, task safety train ing - large or small groups, gen eral safety meet ings or spe cial em pha sis safety talks). Avail able as a slide pro gram with one-page il lus trated ab stracts (sum ma ries) of fa tal min ing ae ci dents. Please or der by quan tity and ti tle(s) desired.

MSHA Up dated ev ery 6 months Cat No: OT 10 (Coal - Surface and **Underground**) OT 12 (Metal/Nonmetal - Surface

and Underground)

Price: Free of charge

#### Fire Protection (C/MNM)

Designed to train Fed eral Mine In spec tors in the inspection of fire protection systems and equipment in both un der ground and sur face mines, in ac cordance with 30 CFR 75 and 30 CFR 77(Coal), and 30 CFR 56 and 30 CFR 57 (M/NM).

#### **Books**

Instructor's Guide (C) 128 pp Student's Text (C) 6 pp Instructor's Guide (M/NM) 118 pp 6 pp Student's Text (M/NM)

MSHA

Cat No: CI 5 (Instructor's Guide-C) CI 5a (Student's Text-C) CI 6 (Instructor's Guide-MNM) CI 6a (Student's Text-MNM) Price: \$4.00 (Instructor's Guide) \$2.00 (Student's Text)

#### Fire Safety (C/MNM)

Deals with the haz ards as so ci ated with fires, and the proce dures used to pre vent fires and to protect life and property when fires do oc cur.

Note to Trainer: Although designed for mining applications, the sections on fire causes and detection systems are useful in any setting.

MSĂA Rev 1990 42 pp

Cat No: SM 13 (English Version)

SM 13-S (Spanish Version) Price: Free of charge (1 copy)

\$2.00 (each additional copy)

#### First Aid (C/MNM)

De scribes first aid tech niques. Dis cusses how to stop bleed ing and con trol shock. Lists spe cific first aid pro ce dures for a wide va ri ety of in ju ries.

NOTE: Span ish ver sion avail able on VHS vid eotape from the University of Texas at Austin

(see page 1).

MSHA Rev 1999 62 pp

Cat No: SM 3

Price: Free of charge (1 book) \$2.00 (each additional copy)

#### First Aid Book (C/MNM)

Designed to provide work ers in the mining in dustry with ba sic first aid knowl edge and skills in or der to better pre pare them to deal with both on-the-job and off-the-job accidents and emergencies.

> MSHA Rev 1998 251 pp

Cat No: IG 61

Price: Free of charge (1 book) \$6.00 (each additional copy)

#### First Aid Instructor's Guide (C/MNM)

Designed for first aid train ers in the min ing in dus try. Teaches meth ods to care for sick or in jured persons. The training materials are packaged loose-leaf to help train ers ex tract se lected study top ics from the to tal pack age. The book con tains printed cop ies of vi suals which can be made into transparencies.

> MSHA Rev 2000 329 pp

Cat No: IG 52

Price: Free of charge (1 book) \$7.00 (each additional copy)

### Front-End Loader Hazard Awareness Program (C/MNM)

Covers front-end loader haz ard rec og ni tion and avoid ance in and around coal and metal/non metal operations.

MSHA 1987 77 pp

Cat No: IG 76

Price: Free of charge (1 book) \$10.00 (1 book, 30 slides)

### Guide to Conducting Noise Sampling, A

M SHA's revised noise stan dard be came effective on Sep tem ber 13, 2000. This noise sampling guide will pro vide the user with easy-to-read in structions on how to con duct noise sur veys. These sur veys can be used to com ply with the monitoring requirements of the re vised noise rule and are in tended to be best practices for the mining industry.

MSHA 2000 9 pp

Cat No: IG 32

Price: Free of charge

#### Haul Road Inspection Handbook

The de sign and main te nance of haul roads plays an im por tant role in sur face haul age safety. This handbook provides guid ance for conducting a safety in spection of a mine's haul age roads. A critical concern is that de sign features, such as the width, steep ness and lay out of the roads, be compatible with the performance capabilities of the equipment, as well as provide for rea son able variability in the level of skill and experience of the equipment operators. The handbook in cludes sum ma ries of MSHA's standards that apply to haul roads.

MSHA 2000 58 pp

Cat No: IG 58

Price: Free of charge

### Haulage Fatalities – Surface Coal (1996-1999)

This publication highlights haulage fatalities that occurred at surface coal oper a tions from January 1996 through December 1999. The fatalities in this report in volve equipment such as: haul trucks, front-end loaders, boom trucks, concrete trucks, scrapers, pickup trucks, and automobiles.

MSHA 2000 21 pp

Cat No: OT 5

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Haulage Fatalities – Surface Metal and Nonmetal (1996-1999)

This publication highlights haulage fatalities that occurred at surface metal and non metal oper a tions from Jan u ary 1996 through December 1999. The fatalities in this report in volve equipment such as: haulage trucks, front-end loaders, scrapers, water trucks, fork lifts, and pickup trucks.

MSHA 2000 38 pp

Cat No: OT 6

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Haulage Fatalities – Underground Coal (1996-1999)

This publication high lights haulage fatalities that occurred at under ground coal oper a tions from January 1996 through December 1999. The fatalities in cluded in this report in volve all fatalities classified by the Mine Safety and Health Administration as "haulage/powered haulage." These statistics do not in clude haulage fatalities at surface areas of under ground oper a tions.

MSHA 2000 27 pp

Cat No: OT 14

Price: Free of charge (1 book) \$2.00 (each additional copy)



This is a NIOSH-developed train ing pro gram that pro vides surface min ers with in for mation for increasing their knowl edge and aware ness of the many haz ards that exist in conducting construction, main tenance, and repair tasks in the work place. It coordinates specific instruction materials with 3-D scenes that depict a variety of haz ards and enhance the perceptual skills of the train ees. This program consists of an Instructor's Guide and three 3-D reels.

NIOSH 1999

Cat No: IG 45

Materials

Needed: Instructor's Guide 78 pp

Three 3-D reels

View-Master\* 3-D viewers may be

purchased directly from the

manufacturer at Fisher-Price, Inc., View-Master Custom Sales, Customer Service, 636 Girard Avenue, East

Aurora, NY 14052 Phone

716-687-3899.

Price: Instructor's Guide \$3.00

Three 3-D reels \$6.00

\* Reference to specific products does not imply endorsement by MSHA.

### Hazard Recognition Training Program for Underground Limestone

This NIOSH-developedhaz ard recognition training pro gram was de vel oped by com bin ing the degraded im age con cept with 3-D slides. It fo cuses on teaching un der ground lime stone min ers cer tain tech niques for rec og niz ing vi sual cues in the work place and us ing these cues to eval u ate mining conditions and haz ard ous sit u ations. This program consists of an instructor's Guide and four 3-D reels.

**NIOSH 1997** 

Cat No: IG 46

Materials

Needed: Instructor's Guide 44 pp

Four 3-D reels

View-Master\* 3-D viewers may be purchased directly from the

manufacturer at Fisher-Price, Inc., View-Master Custom Sales, Customer

Service, 636 Girard Avenue, East Aurora, NY 14052 Phone

716-687-3899.

Price: Instructor's Guide \$2.00 Three 3-D reels \$8.00

\* Reference to specific products does not imply endorsement by MSHA.

#### Heat Stress in Mining (MNM)

Deals with heat stress and strain and heat control mech a nisms in the hu man body. De scribes signs of and first aid for heat-related disorders. Heat stress control mea sures are noted.

MSHA Rev 2000 32 pp

Cat No: SM 6 (English Version)

SM 6-S (Spanish Version)
Price: Free of charge (1 book)

\$2.00 (each additional copy)

#### **Historical Mining Disasters**

This publication includes pictures and newspaper clip pings, taken from ac tual Bu reau of Mines di saster re ports, of some of the worst mining di sasters. The publication also in cludes a listing of Historical Coal Mine Di sasters in the United States from 1900-1976 and a listing of Historical Metal and Non metal Mine Di sasters in the United States from 1900-1979.

MSHA 2000 56 pp

Cat No: OT-32

Price: Free of charge (1 book) \$3.00 (each additional copy)

#### Hoisting (C/MNM)

This mate rial out lines var i ous types of hoists, wire ropes, rope end at tach ments, hoist ing sys tem components, brake men cars, por tal shaft ele va tors, and recordkeeping, as well as appendices and coal and metal and non metal man da tory safety stan dards related to hoist ing. In addition to the text materials, hand outs, les son plans, vi su als, and tests and evaluations are included which will as sist in in structing hoisting training.

#### **Books**

Student's Text 452 pp

MSHA 1994

Cat No: CI 16a Coal (Student's Text)

CI 17a MNM (Student's Text)

Price: \$8.00 (Student's Text)

### Industrial Hygiene for Healthier Miners (C/MNM)

Deals with in dus trial hy giene – the sci ence and art of rec og ni tion, eval u a tion and con trol of health haz ards at work. Text in cludes ex am ples of short- term and long-term job-re lated ex po sures of work ers to toxic agents. Man ual also cov ers pre ven tive measures to protect workers from harmful conditions.

MSHA Rev 1999 53 pp

Cat No: SM 21

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Industrial Hygiene: Sampling for Silica and Noise

This publication for metal and non metal mining is an in structor's manual for a three-day class covering the haz ards of silica and noise, principles of industrial hygiene, sampling methods and procedures, and calculations. The manual includes numerous sampling forms and appendices.

MSHA 1999

Instructor's Guide 335 pp Student's Text 159 pp

Cat No: IG 13 (Instructor's Guide) IG 13a (Student's Text)

Price: Free of charge

#### Industry Supervisory Training — Metal/Nonmetal

Designed for trainers of metal/non metal supervisory personnel. Fo cuses on ways to in crease awareness of the high rate of supervisory/foremenfatalities and on ways to re duce that rate. Pack aged in two volumes (one for in structors and one for participants), each volume is divided into four modules:

Defining the Problem

Developing an Individualized Safety Program

Supervisory Skills

Supervisory Responsibilities

Ma te rials are 3-hole punched. Di viders are furnished. Complete set of ma te ri als con tains:

#### Books

Instructor's Training Guide 262 pp Participant's Handbook 244 pp

MSHA 1985

Cat No: IG 9 (specify number of Participant's

Handbooks)

Price: Free of charge (1 set of books) \$5.00 (each additional book)

#### **Instructor Training Workshop Guide**

Designed to provide the fundamentals of instruction for potential in structors. May also be used as a refresher course for experiencedinstructors.

MSHA Rev 2000

Cat No: IG 24a (Specific to Part 48) 92 pp

IG 24b (Specific to Part 46) 90 pp

Price: Free of charge (1 book) \$3.00 (each additional copy)

### Introduction to Metal/Nonmetal Mining: A Programmed Text

A work book in pro grammed in struction for mat that coverselements of un der ground and sur face metal and non metal mining. Each self-contained work book section contains text materials, questions about the text, and answers to these questions. Students can study and re view the ma te rial at their own pace and check their work as they pro ceed. Topics cov ered include: Basic Geology; Mining and the American Econ omy; Health and Safety Stan dards; The Work Environment; Industrial Hygiene and Personal Protective Equip ment; Mine Gases; and Electricity in Mining. Other subjects include: Blasting and Explosives; Welding; Surface Machinery; Surface Machinery Safety; Dredges and Barges; Underground Mining; Under ground Mining Machinery; Hoisting; Con veyors; Haul age; Pro cessing (Milling and Crushing); Sand and Gravel; Ce ment Plants; and Salt Mines and Mining.

MSHA 1995 482 pp

Cat No: PI 6

Price: Free of Charge (1 book) \$8.00 (each additional copy)

#### Job Safety Analysis (C/MNM)

This train ing pack age of les son plans, hand outs, visu als, and stu dent text is de signed to train Fed eral Mine In spec tors in Job Safety Analysis procedures. It allows the user to be able to iden tify haz ards and to develop step-by-step procedures to provide the safest, most efficient way to complete a major task. **Books** 

Instructor's Guide 168 pp Student's Text 14 pp

MSHA Rev 1999

Cat No: CI 28 (Instructor's Guide)

CI 28a (Student's Text)

Price: \$4.00 (Instructor's Guide) \$2.00 (Student's Text)

#### Job Safety Analysis (C/MNM)

JSA – an ap proach to accident prevention. Manual de scribes the four basicJSA steps: (1) se lect the job, (2) separate the job into basic steps, (3) identify the haz ards and (4) control each haz ard.

MSHA Rev 1999 31 pp

Cat No: SM 5

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Job Safety Analysis Process: A Practical Approach, The (C/MNM)

Designed to enable miners and super visors to work to gether to identify haz ards and to develop step-by-step procedures that make up the safest, most effective way to complete a major task. The Instruction Guide contains three sections:

 Leader's Guide Instructional material necessary to teach the Job Safety Analysis process.

II. Visuals

These visuals follow the Leader's Guide and Participant's Guide, and can be made into transparencies.

III. Participant's Guide

An instructional handout and reference for each person who attends Job Safety Analysis training.

You may want to order additional copies of the Participant's Guide.

MSHA 1990

Cat No: IG 83 (Instruction Guide) 90 pp IG 83a (Participant's Guide) 14 pp

Price: Free of charge (1 copy)

\$4.00 (each additional Instruction

Guide)

\$2.00 (each additional Participant's

Guide)

#### Mine Electricity (C/MNM)

Designed to train Fed eral Mine In spec tors in the inspec tion of elec tri cal sys tems and units in both under ground and surface mines, in ac cor dance with 30 CFR 75 and 30 CFR 77 (Coal), and 30 CFR 56 and 30 CFR 57 (MNM).

#### **Books**

Instructor's Guide (C)	162 pp
Student's Text (C)	58 pp
Instructor's Guide MNM)	137 pp
Student's Text (MNM)	117 pp
140114 5 4000	

MSHA Rev 1999

Cat No: CI 7 (Instructor's Guide-C)

CI 7a (Student's Text-C)
CI 8 (Instructor's Guide-MNM)
CI 8a (Student's Text-MNM)

Price: \$4.00 CI 7 Instructor's Guide - C

\$3.00 CI 7a Student's Text - C

\$4.00 CI 8 Instructor's Guide - MNM \$4.00 CI 8a Student's Text - MNM

#### Mine Emergency Ventilation (C/MNM)

Designed for use by mine rescue team members and managers and supervisors responsible for mine rescue efforts. Les sons in clude in struction on making decisions on ventilating or sealing emergency areas and building ventilation controls and seals.

#### **Books**

Instructor's Guide (C)	33 pp
Student's Text (C)	8 pp
Instructor's Guide (MNM)	33 pp
Student's Text (MNM)	8 pp
MCHA 1002	• •

MSHA 1992

Cat No: CI 9 (Instructor's Guide-C)

CI 9a (Student's Text-C)

CI 10 (Instructor's Guide-MNM) CI 10a (Student's Text-MNM)

Price: \$2.00 (Instructor's Guide)

\$2.00 (Student's Text)

#### Mine Escapeways (C/MNM)

An introduction to mine escapeways and evacuation. Stresses the importance of having clear escapeways in case of an emergency.

MSHA Rev 1997 24 pp

Cat No: SM 11

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Mine Gases (C/MNM)

A com plete ref er ence on the sources and prop erties of mine gases (in clud ing ex plo sive and toxic effects). Dis cusses means of detection, identification, analy sis and le gal re quire ments for each gas found in mine air. Also includes mine gas control methods.

MSHA Rev 1999 42 pp

Cat No: SM 2

Price: Free of charge (1 book) \$2.00 (each additional copy)

#### Mine Illumination (C)

De scribes the eye and how it works; how low and high lighting levels affect vi sion. In cludes brief history of types of lighting used in mines from an cient times. Ex plains MSHA standards and policies that require illumination in mines (un der ground and surface); how to meet these require ments; how light levels are mea sured; and where to get as sis tance.

MSHA Revised 2000 90 pp

Cat No: IG 53

Price: Free of charge (1 book) \$3.00 (each additional copy)

#### Mine Maps — Underground (C)

This course is de signed to train Fed eral Coal Mine In spec tors to read and in terpret underground coal mine maps. In cluded are the reg u la tions with ex amples of their us age, and sug gested mine map symbols.

#### Books

Instructor's Guide 95 pp Student's Text 9 pp

MSHA 1996

Cat No: CI 40 (Instructor's Guide)

CI 40a (Student's Text)

Price: \$3.00 (Instructor's Guide) \$2.00 (Student's Text)

### Mine Rescue Training Modules (C/MNM)

Mod ules are de signed to train ex pe ri enced or in ex pe ri enced mine res cue team mem bers. Each self-contained unit cov ers a sep a rate sub ject and includes sug gested hand outs and vi sual aids.

WV University Mining
Extension Service 1981
BuM Con tract JO308002

#### **Books**

Introduction to Mine Rescue (2002) Metal/Nonmetal Training Module (2201) Coal Training Module (2101)

MSHA Rev 1999

Cat No: IG 5 - Introduction 869 pp

IG 6 - Metal/Nonmetal 528 pp IG 7 - Coal 486 pp

Price: \$12.00 IG 5 - Introduction

\$ 8.00 IG 6 - Metal/Nonmetal

\$ 7.00 IG 7 - Coal

#### Mine Ventilation (C/MNM)

Re views the basic elements of mine ven tilation. Emphasizes the importance of good ven tilation for a safe and healthy work en viron ment.

MSHA Rev 1999 43 pp

Cat No: SM 20

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Miners' Health Pack, The

The Miners' Health Pack is a manual on health haz ards in min ing. It re flects MSHA's de termination to protect miners from exposure to such well-known health haz ards as silica, car bon mon ox ide, and noise, as well as in juries resulting from repetitive work occurring in cramped places and awk ward positions.

Through the Health Pack, which is re ally a se ries of fact sheets and resources, MSHA hopes to make basic scientific, medical, and control technologyinformation about health hazards in mining understandable to miners and mine operators so that they can take action to reduce exposures and protect miners. The materials are pack aged in a binder so that new training materials on hazards such as lead, mer cury, or die sel ex haust can be

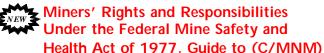
added as they are de vel oped by MSHA to cre ate a comprehensive manual on health haz ards.

86 pp

MSHA 1999

Cat No: IG 28

Price: Free of charge



Summarizes rights and responsibilities of min ers, their rep re sen ta tives, and ap pli cants for mine work under the Federal Mine Safety and Health Act of 1977. In tended as a guide only and not as an "of fr cial" state ment of the law or as a source for le gal interpretations of the Act.

Completely re written and up dated to in clude in formation on Part 46.

MSHA Rev 2000 52 pp

Cat No: OT 2

Price: Free of charge

#### MSA One Hour SSR Self-Contained Self-Rescuer

Designed to en sure proper use of the de vice during a mine emergency.

MSHA Rev 1991 35 pp

Cat No: IG 38

Price: Free of charge (1 book) \$9.00 (1 book, 29 slides)

#### MSA W-65 Self-Rescuer

In structs under ground work ers and visitors in the proper use of this self-rescuer. Provides students with working knowledge of the device and the ability to use the self-rescuer in an emer gency. The 8 basic steps are pictured on a set of slides as well as a pocket card. A CD on which a PowerPoint presentation (with a "reader" so the user can view the presentation with out the need of the PowerPoint program) of the entire manual is also available.

MSHA Rev 2000 15 pp Cat No: IG 2 (1 book, 10 slides or 1 CD)

Cards: 100 cards per set
Price: Free of charge (1 book)
\$ 5.00 (1 book, 10 slides)
\$8.00 (1 book, 1 CD)
\$ 5.00 (per set of cards)

### On-The-Job Training Modules — Anthracite and Bituminous Coal Preparation Plants and Shops

Sixteen-part program de vel oped co op er a tively by MSHA and members of the anthracite and bituminous coal mining in dustry. De signed to supple ment ex ist ing train ing pro grams and as sist the in dus try in conducting effective on-the-job training (OJT).

Topics in clude:

- Plant Operation
- 2. Plant Maintenance and Repair
- 3. Maintaining Conveyor Systems
- 4. Welding and Cutting
- Electrical Procedures for Nonelectricians
- Thermal Dryer Operation
- 7. Railcar Handling
- 8. Barge Haulage/Dredge Operations
- 9. Barge Loading Facilities
- 10. Front-End Loader Operation
- 11. Truck Haulage
- 12. Bulldozer Operation
- 13. Mobile Crane Operation
- 14. Ladders and Scaffolds
- 15. Manual Handling of Materials
- 16. Prevention of Slips and Falls Addendum - Questions for Discussion

MSHA 1988 226 pp

Cat No: IG 49

Price: Free of charge (1 book) \$5.00 (each additional copy)

### On-The-Job Training Modules — Cement

Developed cooperatively by MSHA and mem bers of the ce ment in dus try. A fif teen-mod ule pro gram:

- 1. General Plant Cleanup
- Cleaning Belt Conveyors
- 3. Unplugging Clinker Breaker
- Shooting Kiln Gun
- 5. Unplugging Preheater
- Restarting After a Plantwide Power Failure
- Manual Handling of Materials
- 8. Operating and Handling Railroad Equipment
- 9. Splicing Conveyor Belts
- Using an Overhead Hoist to Lift or Handle Parts or Material
- 11. Replacing the Drive Chain or Belt on a Screw Conveyor

- 12. Handling Materials with Shop Overhead Crane
- 13. Welding and Cutting
- 14. Equipment Lockout Procedures
- 15. Electrical Procedures for Non-Electricians

Each mod ule con tains a brief job de scrip tion and a ge neric job safety anal y sis (JSA) of a job com mon tocementoperations.

> **MSHA** 113 pp

Cat No: IG 42

Price: Free of charge (1 book) \$4.00 (each additional copy)

### On-The-Job Training Modules — Metal and Nonmetal Dredges

Developed cooperatively by MSHA and members of the dredging in dustry. A five-module program:

- 1. Dredge Operations
- 2. Barge Haulage
- Replacing Major Components of a Cutterhead Dredge
- 4. Equipment Lockout Procedures
- 5. Manual Handling of Materials

Each mod ule con tains a brief job de scrip tion and a ge neric job safety anal y sis (JSA) of a job com mon to dredging operations.

> MSHA 1985 44 pp

Cat No: IG 41

Price: Free of charge (1 book) \$4.00 (each additional copy)

#### On-The-Job Training Modules — Metal and Nonmetal Inspectors

This 23-part series of on-the-job training materials is used in the training of MSHA metal/non metal inspec tors. It may also be used by in dus try per son nel wishingtoimprovetheirinspectioncapabilities. Topics in clude:

- Citations and Orders
   Inspection Procedures
- 3. Ground Control
- 4. Loading, Hauling and Dumping
- 5. Machinery and Equipment
- 6. Material Storage and Handling7. Fire Prevention and Control
- 8. Air Quality, Ventilation, and Noise

### Training Materials

- Electricity
   Illumination
- 11. Personal Protection
- 12. Compressed Air and Boilers
- 13. Drilling
- 14. Explosives
- 15. Miscellaneous
- 16. Part 50
- 17. Safety Programs
- 18. Travelways and Escapeways
- 19. Hoisting
- 20. Accident Investigation
- 21. Mine Rescue and Emergency Procedures
- 22. Gassy Mines
- 23. Radiation

281 pp MSHA Rev 2000

Cat No: IG 55

Price: Free of charge (1 book) \$6.00 (each additional copy)



Developed cooperatively by MSHA and mem bers of the sand, gravel and crushed stone in dus tries. Designed to sup ple ment ex isting training pro grams and as sist the in dustry in conducting effective on-the-job training (OJT). Con sists of nine teen modules:

- 1. Starting the Plant
- 2. Plant Clean-Up
- 3. Plant Shutdown
- 4. Plant Operation
- 5. Maintaining Conveyor Systems
- 6. Plant Repair
- 7. Welding and Cutting
- 8. Equipment Lockout Procedures
- **Electrical Procedures for Non-Electricians**
- 10. Truck Haulage
- 11. Ground Control
- 12. Inspecting and Replacing Cables (Wire Ropes)
- 13. Replacing the Drive Chain or Belt on a Screw Conveyor
- 14. Manual Handling of Materials
- 15. Using an Overhead Hoist to Lift or Handle Parts or Material
- 16. Handling Material with Shop Overhead Traveling Crane

- 17. Primary Crushing Operation
- 18. Operating Drilling Equipment
- 19. Transportation, Use, and Storage of **Explosives**

Each mod ule con tains both a de scrip tion and a ge neric job safety anal y sis (JSA) of a job com mon to sand, gravel and crushed stone op er a tions.

> MSHA Rev 2000 204 pp

Cat No: IG 40

Price: Free of charge (1 book) \$6.00 (each additional copy)

### On-The-Job Training — Structuring Effective Programs (C/MNM)

How to design, conduct, and evaluate structured OJT training pro grams. In tended as a guide for supervisory person nel in volved in OJT.

> MSHA 1983

89 pp

Cat No: IG 12

Price: Free of charge (1 book) \$3.00 (each additional copy)

### On-The-Job Training Modules — Surface **Anthracite**

Fifteen-partprogram developed cooperatively by MSHA and members of the an thracite mining in dustry. De signed to supple ment existing training programs and as sist the in dustry in conducting effective on-the-job training (OJT). Topics include:

- 1. Front-End Loader Operation
- 2. Dozer Operation
- 3. Hauler Operation
- 4. Pan Scraper Operation
- 5. Backhoe and Hydraulic Excavator Operation
- Power Shovel Operation
- 7. Dragline Operation
- 8. Drill Operation
- 9. Storage, Transportation, and Use of **Explosives**
- 10. Field Maintenance of Surface Equipment
- 11. Welding and Cutting
- 12. Inspecting and Replacing Wire Ropes (Cables)
- 13. Ground Control
- 14. Manual Handling of Materials
- 15. Prevention of Slip and Fall Accidents Addendum - Questions for Discussion

Each mod ule con tains an in tro duc tion and a generic job safety analy sis (JSA) of a job common to surface anthracite operations.

MSHA Rev 1999 210 pp

Cat No: IG 51

Price: Free of charge (1 book) \$6.00 (each additional copy)

### On-The-Job Training Modules — Surface Coal

Fifteen-partprogram developed cooperatively by MSHA and members of the surface coal mining industry. Designed to supplement existing training programs and as sist the industry in conducting effective on-the-job training (OJT). Topics include:

- 1. Front-End Loader Operation
- 2. Bulldozer Operation
- Truck Haulage
- 4. Pan Scraper Operation
- 5. Backhoe and Hydraulic Excavator Operation
- 6. Power Shovel Operation
- 7. Dragline Operation
- 8. Drill Operation
- 9. Storage, Transportation and Use of Explosives
- 10. Field Maintenance of Surface Equipment
- 11. Welding and Cutting
- 12. Inspecting and Replacing Wire Ropes (Cables)
- 13. Ground Control
- 14. Manual Handling of Materials
- 15. Prevention of Slip and Fall Accidents Addendum Questions for Discussion

MSHA 1987 201 pp

Cat No: IG 48

Price: Free of charge (1 book) \$6.00 (each additional copy)

## On-The-Job Training Modules — Surface Coal Mine Inspection

This 23-module set of materials is intended to help train entry level coal mine in spectors. It can also be used to refresh or retrain jour ney man in spectors in specific subject areas.

### Topics covered include:

- 1. Uniform Mine File
- 2. Mine Books and Records
- 3. Surface Installations
- 4. Refuse Piles
- 5. Impoundments

- 6. Thermal Dryers
- 7. Safeguards for Mechanical Equipment
- 8. Compressed Air and Boilers
- 9. Electric Equipment General
- 10. Trailing Cables
- 11. Grounding
- 12. Surface High-Voltage Distribution
- Surface Low- and Medium-Voltage AC Circuits
- 14. Ground Control
- 15. Fire Protection
- 16. Maps
- 17. Explosives and Blasting
- 18. Personnel Hoisting
- 19. Auger Mining
- 20. Surface Loading and Haulage
- 21. Miscellaneous
- 22. Trolley Wires and Trolley Feeder Wires
- 23. Slope and Shaft Sinking

This train ing pack age has been de vel oped us ing the lat est avail able in for mation. Be cause regulations, policy, and mining technology constantly change, be sure to check for information that could super sede the material in the module.

MSHA 1999 102 pp

Cat No: IG 25 Price: \$5.00

### On-The-Job Training Modules — Surface Metal/Nonmetal

Seventeen-partprogramdevelopedcooperatively by MSHA and members of the surface metal/nonmetalindustry. Designed to supplement existing training programs and as sist the in dustry in conducting effective on-the-job training (OJT).

Topics in clude:

- 1. Front-End Loader Operation
- 2. Dozer Operation
- 3. Hauler Operation
- 4. Pan Scraper Operation
- 5. Backhoe and Hydraulic Excavator Operation
- 6. Mobile Crane Operation
- 7. Hydraulic Shovel Operation
- 8. Power Shovel Operation
- Dragline Operation
- 10. Drill Operation
- Storage, Transportation and Use of Explosives

- 12. Field Maintenance of Surface Equipment
- 13. Welding and Cutting
- 14. Inspecting and Replacing Wire Ropes (Cables)
- 15. Ground Control
- 16. Manual Handling of Materials
- 17. Prevention of Slip and Fall Accidents

Addendum - Questions for Discussion

Each mod ule con tains an in tro duc tion and a generic job safety analysis (JSA) of a job common to surface metal and non metal oper a tions.

MSHA 1988

262 pp

Cat No: IG 43

Price: Free of charge (1 book) \$6.00 (each additional copy)

### On-The-Job Training Modules — Underground Anthracite

Seven-part program developed cooperativelyby MSHA and members of the anthracite mining industry. Designed to supplement existing training programs and as sist the industry in conducting effective on-the-job training (OJT). Topics include:

- 1. Roof Control General
- 2. Installing Permanent Supports
- 3. Equipment Lockout Procedures
- 4. Prevention of Slip and Fall Accidents
- 5. Manual Handling of Materials
- 6. Installing Ventilation Controls
- 7. Blasting Operations

Addendum - Questions for Discussion

MSHA Rev 1999 101 pp

Cat No: IG 50

Price: Free of charge (1 book) \$5.00 (each additional copy)

### On-The-Job Training Modules — Underground Coal

Designed cooperativelyby MSHA and members of industry. Consists of thirteen modules:

- 1. Roof Control General
- 2. Installing Temporary Supports
- 3. Installing Permanent Supports
- Shuttle Car Haulage
- Scoop Haulage
- 6. Operating Track Haulage Equipment
- 7. Belt Conveyor Haulage
- 8. Manual Handling of Materials
- 9. Prevention of Slip and Fall Accidents
- Equipment Lockout Procedures

- 11. Electrical Procedures for Non-Electricians
- 12. Installing Ventilation Controls
- 13. Section Belt and Power Center Moves

MSHA 1986 191 pp

Cat No: IG 47

Price: Free of charge (1 book) \$5.00 (each additional copy)

### On-The-Job Training Modules — Underground Coal Mine Inspection

This 23-module set of materials is intended to help train entry level coal mine in spectors. It can also be used to refreshor retrain jour ney man in spectors in specific subject areas.

Topics covered in clude:

- 1. Uniform Mine File
- Mine Books and Records
- 3. Roof Support
- 4. Ventilation
- 5. Escapeways
- 6. Longwall and Shortwall Travelways
- 7. Combustible Materials and Rock Dusting
- 8. Electrical Equipment General
- 9. Trailing Cables
- 10. Grounding
- 11. Underground High-Voltage Distribution
- 12. Low- and Medium-Voltage A Circuits
- 13. Trolley Wires and Trolley Feeder Wires
- 14. Fire Protection Underground
- 15. Mine Maps
- 16. Underground Blasting and Explosives
- 17. Hoisting and Man Trips
- 18. Emergency Shelters
- 19. Communications
- 20. Miscellaneous
- 21. Diesel Equipment
- 22. Respirable Dust
- 22. Citations and Orde
- 23. Citations and Orders

This train ing pack age has been de vel oped us ing the lat est avail able in for mation. Be cause regulations, policy, and mining technology constantly change, be sure to check for information that could super sede the material in the module.

MSHA 1999 138 pp

Cat No: IG 26 Price: \$5.00



### Part 45 - Coal and Metal/Nonmetal Entry Level Training

This program covers 30CFR Part 45 which pertains to the regulations covering independent contractors. Based on case studies, students will de ter mine whether ci ta tion(s) or or der(s) must be issued to the independent contractor, to the mine operator, or to both.

> MSHA 1997 54 pp

Cat No: CI 32

Price: Free of charge

\$3.00 (each additional copy)

### Part 46 Instructors Guide With Lesson Plans, 30 CFR

This guide is de signed to as sist mine op er a tors and independent contractors, who are covered by the part 46 regulations, to develop effective and mine-spe cific train ing pro grams. The tar get au di ence for this guide is the in struc tor who gives part 46 training and the person(s) designated by the operator as beingresponsible for part 46 training at the mine.

MSHA 1999 21 pp

(English Version) Cat No: IG 37

IG 37S (Spanish Version)

Price: Free of charge



### Part 46 Starter Kit With Sample Training Forms, 30 CFR

This pack age is in tended to help the user de velop an effective, mine-specific training program that meets the pro vi sions of part 46.

> MSHA 1999 75 pp

Cat No: IG 36 (English Version)

IG 36S (Spanish Version)

Price: Free of charge

### Part 46 Training Packet — Introduction to the Work Environment

This pack age has 10 sections that review different sub jects which can be dis cussed with train ees in an In tro duction to the Work En vi ron ment as re quired un der the pro vi sions of part 46. Topics cov ered include: Surface Machinery, Surface Machinery Safety, Dredges and Barges, Haul age, Pro cessing

(Milling and Crushing), Conveyors, Electricity in Mining, Welding, Blasting and Ex plo sives, and Sand and Gravel.

> MSHA 2000 75 pp

Cat No: IG-31

Price: Free of charge

### Part 48 Alcohol and Other Drug Abuse Recognition in the Mining Industry (C/MNM)

A course of study that includes les sons on common types of drugs and their effects on the worker, al cohol as a com monly abused sub stance, how to recog nize the symp toms of sub stance abuse, and how to get as sis tance for abuse prob lems. Can be tailored to include the company's Employee As sistance Pro gram if avail able. In cludes tests and answer sheets.

#### **Books**

Instructor's Guide 26 pp Student's Text 15 pp

**MSHA** 1992

Cat No: IG 80

Price: Free of charge (one book) \$3.00 (Instructor's Guide) \$3.00 (Student's Text)

### Part 48 Training — Coal

Surface

General training materials designed for use at all surface coal mining operations, in cluding surface work ar eas of un der ground mines and coal prep aration plants. The complete program consists of 23 separate training modules which support four Part 48 training categories:

- (1) New Miners Training
- (2) Newly Employed Experienced Miners Training
- (3) Annual Refresher Training
- (4) Hazard Training

An out line is also fur nished to show train ers how the pro gram is put to gether.

WV University Mining Extension Service BuM Contract JO188069

Cat No: IG 22

Price: \$15.00 (23 modules, 1 outline)

#### Underground

General training materials de signed for use at all under ground coal mining operations. The complete program consists of 27 separate training modules which support four Part 48 training categories:

(1) New Miners Training

(2) Newly Employed Experienced Miners Training

(3) Annual Refresher Training

(4) Hazard Training

An out line is also fur nished to show train ers how the pro gram is put to gether.

WV University Mining
Extension Service 1980
BuM Contract JO188069

Cat No: IG 23

Price: \$18.00 (27 modules, 1 outline)

### Part 48 Training — Metal/Nonmetal

#### Deep Mines

General materials designed for use at all deep metal/non metal mines — **except** un der ground salt mines. Pack aged in three vol umes:

(1) New Miners Training 519 pp

(2) Newly Employed Experienced

Miners Training 123 pp (3) Annual Refresher Training 139 pp

Bendix Corp 1981 BuM Contract JO308011

Cat No: IG 17

Price: \$11.00 (3 books)

#### Sand and Gravel Mines

Designed for use **only** at sand and gravel mines. Repeats general materials contained in **IG 19 Surface Mines** pro gram but has changes and additions specific to sand and gravel oper a tions. Packaged in three volumes:

(1) New Miners Training 212 pp

(2) Newly Employed Experienced

Miners Training 115 pp
(3) Annual Refresher Training 146 pp

Bendix Corp 1981 BuM Contract JO308011

Cat No: IG 18

Price: \$8.00 (3 books)

#### Surface Mines

General materials designed for use at all surface metal/non metal mines — **except** sand and gravel operations and surface ura nium mines. Pack aged in three vol umes:

(1) New Miners Training 218 pp

(2) Newly Employed Experienced

Miners Training 119 pp
(3) Annual Refresher Training 142 pp

Bendix Corp 1981 BuM Contract JO308011

Cat No: IG 19

Price: \$8.00 (3 books)

#### **Underground Salt Mines**

Designed for use only at underground salt mines. Repeats general materials contained in IG 19 Surface Mines pro gram but has changes and additions specific to under ground salt mining operations. Pack aged in three volumes:

(1) New Miners Training 235 pp

(2) Newly Employed Experienced

Miners Training 118 pp ) Annual Refresher Training 139 pp

(3) Annual Refresher Training 139 p Bendix Corp 1981

BuM Contract JO308011

Cat No: IG 20

Price: \$8.00 (3 books)

#### Part 50 — Coal and Metal/Nonmetal

Title 30 CFR Part 50 defines the accident, injury, illness, employment and production (coal) reporting obligations to MSHA of operators working on mine properties. This information also discusses the procedures followed in processing the reported data, a description of some statistical computations used in arriving at incident and severity rates, and a question and answer section. In addition to the text materials, handouts, lesson plans, visuals, and test and evaluations are included which will assist in instructing 30 CFR Part 50 training.

#### **Books**

Instructor's Guide 222 pp Student's Text 51 pp

> MSHA Rev 1999

Cat No: CI 30 (Instructor's Guide)

CI 30a (Student's Text)

Price: \$5.00 (Instructor's Guide)

\$3.00 (Student's Text)

### Permissibility – Electric Face Equipment (C/MNM)

Addresses definitions, mandatory requirements, and other information concerning electric-driven mining equipment.

> Note to Trainer: Designed for use by safety and maintenance personnel, mine inspectors, and other mining personnel.

MSHA Rev 1999 27 pp

Cat No: SM 16

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Permissible Draeger 810 Respirator for Self-Rescue

De signed to in struct all un der ground per son nel in proper testing and use of this self-res cuer. Explainslimitations of the device. A pocket-card, which pic tures the ba sic eight steps re quired for proper use, is also available.

MSHA Rev 1991 9 pp

Cat No: IG 3 (1 book, 10 slides) Cards: 100 cards per set

Price: Free of charge (1 book)

\$5.00 (1 book, 10 slides) \$5.00 (per set of cards)

#### Personal Protective Equipment (C/MNM)

Use of personal protective equipment is necessary in mining (and in many other oc cupational areasin cluding some home activities). Manual describes various devices used, why they are needed, where they are needed and how to care for the equipment. (Typ i cal equip ment in cludes head, eye, face, foot and body protection devices and respiratory protectiondevices.)

> MSHA Rev 1999 69 pp

Cat No: SM 14 (English Version)

SM 14-S (Spanish Version)

Price: Free of charge (1 book)

\$2.00 (each additional copy)

#### Principles of Mine Rescue (C/ MNM)

Designed to in struct mining per son nel in the principles in volved in mine res cue op er a tions and to increase min ers' aware ness of the ne ces sity of a thor ough knowl edge of mine res cue tech niques.

> MSHA Rev 2000 94 pp

Cat No: IG 16

Price: Free of charge (1 book) \$11.00 (1 book, 36 slides)

#### **Program Policy Manual**

Sum mary of MSHA's policies in the areas listed below:

Volume I - 1977 Mine Act

Volume II - Testing and Evaluation

Volume III - 30 CFR Parts 40-50 and Part 100

Volume IV - Metal/Nonmetal Mines

Volume V - Coal Mines

MSHA Up dated each year

Cat No: OT 15 (Coal – Volumes I, II, III, V)

OT 16 (Metal/Nonmetal - Volumes I,

III, IV)

OT 17 (General Interest – Volumes I-V)

Price: OT 15 \$7.00 OT 16 \$6.00 OT 17 \$7.00

Also avail able through MSHA's home page at http://www.msha.gov

### Repeat Violation Reduction Program

This program was developed by MSHA's coal district of fice in Morgantown, West Vir ginia, as an inspection procedure. The intent of the program is to reduce the number of repeat violations of mandatory standards by identifying the root causes of the violations. It may also be used by in dustry personnel to reduce repeat violations.

MSHA Rev 1999 134 pp

Cat No: IG 63

Price: Free of charge (1 book) \$4.00 (each additional copy)

### Roof and Rib Control (C)

This train ing pack age of les son plans, hand outs, visuals, and stu dent text is de signed to train Federal Mine In spec tors in roof con trol plans and mandatory stan dards re lated to roof and rib control.

### **Books**

Instructor's Guide 322 pp Student's Text 104 pp

MSHA Rev 1999

Cat No: CI 20 (Instructor's Guide) CI 20a (Student's Text) Price: \$6.00 (Instructor's Guide)

\$4.00 (Student's Text)

### Rubber-Tired Front-End Loader and Forklift Truck Accident Prevention (C/MNM)

Designed to show safe working procedures for front-end load ers and fork lift trucks.

MSHA Rev 1991 57 pp

Cat No: IG 30

Price: Free of charge (1 book) \$30.00 (1 book, 134 slides)

### Safety and Health Audit for Aggregate Operators (MNM)

This safety and health audit is a short version adapted from IG-14a. It fo cuses on the most common violations found at aggregate operations, based on twenty con ditions/practices that accounted for 84% of all violations cited at sand, gravel, and crushed stone oper a tions in 1997. Completing this self-au dit pack age is a first step in developing a safety program that will avoid common conditions/practices at your mining oper a tion.

MSHA 1999 21 pp

Cat No: IG 14

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Safety and Health Audit for Aggregate Operators – Long Version (MNM)

This safety and health audit is a self-audit package that will help to check safety and health conditions at your surface op er a tion. The audit is focused on the require ments of 30 CFR Part 56. Completing this self-audit package is a first step in developing a safety program that will avoid common conditions/practices at your mining operation.

MSHA 1999 159 pp

Cat No: IG 14a

Price: Free of charge (1 book) \$4.00 (each additional copy)

#### Safety Basketball (MNM)

A 4-team game for use in training participants on health and safety stan dards.

MSHA 1995 50 pp

Cat No: IG 78 Price: \$4.00

#### Safety Observation (C/MNM)

De signed to help pres ent train ing to min ing in dus try per son nel on safety ob ser va tion and to help manage ment un der stand that an efficient safety ob ser va tion can be in te grated into mine accident pre ven tion pro grams. This mate rial is a companion to **The Job Safety Analysis Process: A Practical Approach-IG 83.** 

MSHA Rev 1999 30 pp

Cat No: IG 84

Price: Free of charge (1 book) \$2.00 (each additional copy)



This handbookprovides miners and mine operators with basic in for mation on sampling methods and procedures. It is based on the course materials for Industrial Hygiene: Sampling for Silica and Noise (IG-13).

MSHA 1999 37 pp

Cat No: IG 29

Price: Free of charge

### Small Mines Training (C)

General information designed to improve the effective ness of supervisory personnel. Intended for all levels of coal mine management. Complete set of materials contains:

#### **Books**

Managing Maintenance	52 pp
Human Relations Skills at Work	39 pp
Managing a Section	37 pp
Complying With Part 48	55 pp
Conducting Your Own Training	35 pp
Elements of Management	
Planning	41 pp
Developing a Comprehensive	
Safety Program	46 pp
WV University Mining	
Extension Service	
(sub con trac tor to HUMF	RRO) 1982
BuM Con tract JO18805	3 HÚMRRO
E81-0303 WVU	
MSHA Rev 1999	
Cat No: IG 11	
Price: \$6.00 (7 books)	

#### Stockpiling Safety

Deals with the safe op er a tion of mo bile equip ment on and around stock piles. Dis cusses the haz ards associated with stock piles and re views the pro cedures that can be used to min i mize the oc cur rence of accidents.

MSHA 2000 58 pp

Cat No: SM 27

Price: Free of charge (1 copy) \$2.00 (each additional copy)

### Substance Abuse — Discussion Guide for Inspectors (C/MNM)

This book let con tains a guide for in spec tors to discuss al co hol and drug abuse is sues with work ers when making in spections.

MSHA 1992 4 pp

Cat No: OT 28

Price: Free of charge

### Substance Abuse — Discussion Guide for Managers (C/MNM)

This book let contains a guide for man agers/su pervisors or safety directors to make talks on alco hol and drug abuse at meetings or seminars, or for making safety talks.

MSHA 1992 3 pp

Cat No: OT 29

Price: Free of charge

### Substance Abuse Recognition for Supervisors (C/MNM)

Designed to educate supervisors in the common types of drugs and their effects on the worker, how to recognize a troubled employee, and how to give as sis tance. Can be tailored to include the company's Employee Assistance Program if available.

Books

Instructor's Guide 71 pp Student's Text 17 pp

MSHA 1992

Cat No: CI 11 (Instructor's Guide)

CI 11a (Student's Text)
Price: \$4.00 (Instructor's Guide)

\$3.00 (Student's Text)

### Supervisory Training Program (C)

Designed for coal mine section supervisors. Focuses on the knowl edge and skills needed to carry outsupervisoryresponsibilities. Pack aged in two volumes (one for in structor and one for partici-

pants). Each volume is di vided into ten les sons:

- 1. Role of the Supervisor
- 2. Leadership and Supervision
- Motivation
- 4. General Communications
- 5. Organizational Communications
- 6. Enforcing Rules and Regulations7. Performance Review
- 8. Planning
- 9. Supervisors' Training Responsibilities
- 10. Supervisors' Safety Role

Each volume is bound sep a rately. Complete set of trainingmaterials contains:

#### **Books**

Instructor's Handbook	456 pp
Participant's Handbook	172 pp
Slides	107 slides

HUMRRO 1982 BuM Con tract JO188053

Cat No: IG 4

Price: \$7.00 (Instructor's Handbook) \$4.00 (Participant's Handbook)

### **Surface Contractors Training Program** (C/MNM)

This program will pro vide recommendations and in structional guide lines to help pre vent accidents to sur face con tractors in the mining in dustry. It includes six fun da men tal ac ci dent pre ven tion top ics: Re view of Per ti nent Fed eral Laws; Re view of Independent Contractor Fatalities; Review of General First Aid; Review Hazard Training Applications; Review Pertinent General Safety Guide lines; and Review Line of Authority and Responsibility.

> MSHA 1999 478 pp

Cat No: OT 18 Price: \$7.00

## Surface Haulage Coal Mine Inspector Training

This set of materials covers 39 topics relating to sur face coal mine haul age reg u la tions and pro cedures.

#### Books:

Instructor's Guid	de 750 pp
Student's Text	50 pp
MSHA	1997
Cat No: Cl 22	(Instructor's Guide)
CI 22a	(Student's Text)

Price: \$11.00 (Instructor's Guide) \$ 3.00 (Student's Text)

### Surface Haulage Metal/Nonmetal Mine Inspector Training

This set of materials reviews 86 topics relating to surface metal/nonmetal mine haulageregulations and procedures.

#### Books:

Instructor's Guid	le 800 pp
Student's Text	27 pp
MSHA	1997
Cat No: Cl 45	(Instructor's Guide)
CI 45a	(Student's Text)
Price: \$11.00	(Instructor's Guide)
\$ 3.00	(Student's Text)

### Surface Haulage Safety (C/MNM)

Accidents involving haulage trucks and other mobile surface equipment constitute a major safety prob lem in the min ing in dus try. This man ual il lustrates the im por tant prin ci ples of haul road de sign and maintenance, braking system in spection and main te nance, and driver pro ce dures re lating to truck run aways. A section also looks at potential hazards and preventive measures associated with sur face haul age, and how these haz ards can be minimized to equipment operators.

> MSHA Rev 2000 50 pp

Cat No: SM 22

Price: Free of charge (1 book) \$2.00 (each additional copy)

#### Surface Installations (C)

Designed to train Fed eral Coal Mine In spec tors in the in spec tion of sur face in stal lations at both un der ground and sur face mines, in clud ing coal prep a ration plants, in compliance with 30 CFR Part 77. A lesson on in specting ther mal dry ers is in cluded.

#### **Books**

Instructor's Guide 189 pp Student's Text 56 pp

MSHA 1992

Cat No: Cl 12 (Instructor's Guide) Cl 12a (Student's Text)

Price: \$5.00 (Instructor's Guide) \$3.00 (Student's Text)

## Surface Powered Haulage Safety (C/MNM)

This computer CD contains visuals and discussion based on a class room pre sen ta tion de vel oped by MSHA in structors. The training material is aimed at surface haul age accident prevention, and addresses sev eral of the haz ards that may arise in surface haul age op er a tions at mines. It is pri mar ily de signed for equip ment op er a tors, su per vi sors, and safety per son nel at sur face mines, and may also be beneficial for oth ers who work at a sur face mine. The full pre sen ta tion may take about an hour and a half. The same presentation is available on MSHA's home page (www.msha.gov); how ever, the CD includes ad di tional for mats for those who wish to pres ent the mate rial full-screen with a computer projection system, with out being connected to the internet, and/or wish to tai lor the ma te rial to their operations.

MSHA 2000 1 CD

Cat No: IG 56 Price: \$8.00

### Survey of Substance Abuse Programs in the Mining Industry, A (C/MNM)

Sur vey con ducted for the Mining In dus try Com mittee on Sub stance Abuse. Gives in sight on com pany programs designed to curb work site alcoholand drug use.

MSHA 1990 174 pp

Cat No: OT 30

Price: \$5.00 (1 book)

### Think "Quicksand": Accidents Around Bins, Hoppers and Stockpiles (C/MNM)

Each year, lives are lost in ac ci dents in volving loose materials. Typically, vic tims have been buried by material giving way under them or falling down on them. Most victims in these ac ci dents have died of suffocation; a few have died of trau matic in juries. In many cases, accident victims have been pulled down and as phyxiated in loose material almost as if it were quicksand. That is the reason this program is titled: "Think Quick sand." This program covers 44 selected fatalities that occurred around bins, stockpiles, and other facilities at mining oper a tions during 1980-1986. A wide variety of "quick sand" accidents are included.

MSHA 1988 44 pp

Cat No: IG 27

Price: \$11.00 (1 book, 38 slides)

### Tire and Rim Safety Awareness Program (C/MNM)

Designed for trainers of coal and metal/non metal mine per son nel. Covers the han dling and ser vicing of multi- and sin gle-piece rim wheels.

MSHA Rev 1999 34 pp

Cat No: IG 60

Price: Free of charge (1 book) \$4.00 (each additional copy)

## Toolbox — Practical Ways to Control Exposure to Mercury in Gold Mines

Ex po sure to mer cury can cause per manent disability or even death. This tool box is designed to share "best practices" with miners and managers who work at gold and silver mines to prevent ex posure to mercury. Contains diagrams and check lists related to employee hy giene facility, lunch room, refinery, HVAC, cyanidation process, and general engineering controls.

MSHA 1999 75 pp

Cat No: OT 48 Price: \$4.00



#### Toolbox — Practical Ways to Reduce **Exposure to Coal Dust in Continuous Mining**

This tool box de scribes cur rently avail able methods and practices to control dust generation and reduce dust exposure in continuous mining by properly apply ing air and wa ter, and by mod i fy ing the cut ting sequence.

> 93 pp **MSHA** 1999

Cat No: OT 47 Price: \$4.00



### Toolbox — Practical Ways to Reduce Exposure to Coal Dust in Longwall Mining

This tool box de scribes cur rently avail able methods and practices to control dust generation and reduce dust exposure in longwall mining by properly apply ing air and wa ter, and by mod i fy ing the cut ting sequence.

> MSHA 34 pp

Cat No: OT 46 Price: \$4.00



### Toolbox — Practical Ways to Reduce Exposure to Diesel Exhaust in Mining

This tool box contains practical ideas for reducing min ers' ex po sures to die sel par tic u late mat ter in the miningenvironment.

> MSHA 1999 93 pp

Cat No: OT 45 Price: \$4.00

### Traffic Control at Surface Mines and Installations, Guidelines for (C/MNM)

All kinds and sizes of vehicles travel roads at surface operations. These vehicles are operated by driv ers who travel the mine haul age roads on a daily ba sis or very in fre quently or even for the first time. This means that there is a need for good traffic con trol on mine haul roads. This full-color spiral-bound booklet re views what mine op er a tors and driv ers need to know about traffic con trol.

MSHA 1997 14 pp

Cat No: OT 26 Price: \$4.00



### TRAP — Take Responsibility for Accident Prevention

Near-misses are in ci dents which in di cate the presence of a haz ard – a "trap," that is wait ing to catch a miner. Traps come and go in the workplace every day. Some are simple, such as a cord stretched across a walk way, while oth ers are more com plex such as a poorly de signed set of con trols on a mining ma chine. In any case, traps are dan ger ous. "Take ResponsibilityforAccident Prevention" is a proactive program. It in volves min ers, super visors, managers, and MSHA in an effort to make the work place safer for every one. The TRAP Program in cludes four short courses. The en tire pro gram is avail able on CD.

> **MSHA** 2000

Cat No: IG 62

IG 62a Take Responsibility for **Accident Prevention** 

Task Training IG 62h Miners' Rights and IG 62c

Responsibilities

IG 62d Supervisory Responsibilities

Price: Free of charge (1 of each book)

\$ 2.00 IG 62a Take Responsibility for Accident Prevention

\$ 2.00 IG 62b Task Training

\$ 2.00 IG 62c Miners' Rights and Responsibilities

\$ 2.00 IG 62d Supervisory

Responsibilities

\$8.00 1 CD of entire set

### Underground Haulage, Transportation, and Machinery (C)

De signed to train Fed eral Coal Mine In spec tors in the in spec tion of haul age and trans por ta tion sys tems and ma chin ery in un der ground coal mines, in compli ance with 30 CFR Part 75.

#### Books

Instructor's Guide 213 pp Student's Text 144 pp

MSHA 1992

Cat No: CI 13 (Instructor's Guide)

CI 13a (Student's Text)
Price: \$5.00 (Instructor's Guide)

\$4.00 (Student's Text)

### Winter Alert (C/MNM)

Surveys potentially dangerous conditions encountered in under ground coal oper ations during the winter months, and covers winter related surface mining hazards. Although primarily intended for coal, much of the information in this manual can be applied to metal/non metal mines.

MSHA Rev 1999 64 pp

Cat No: SM 19

Price: Free of charge (1 book) \$2.00 (each additional copy) Working Safely With Silica, A Guide to

Every year more than 250 work ers in the U.S. die with silicosis, an in curable, pro gres sive lung disease caused by overexposure to dust con tain ing silica. If you work, or you are an em ployer, in one of the dozens of in dustries where dust con tain ing silica is present, you need to know how to pre vent this disease. This guide—acooperative effort between the Depart ment of Labor and the National Institute for Occupational Safety and Health in the Department of Health and Human Services—explains how you can protect your self and others each day on the job.

**Note:** There is a companion card titled 'HH-7 – Tips for Preventing Silicosis." See the "Pocket Cards" listing for ordering information.

DOL/NIOSH 1997 20 pp

Cat No: OT 33 (English Version)

OT 33S (Spanish Version)

Price: Free of charge

### **POCKET CARDS**

g

This section is an alphabetical listing of the available printed pocket cards .

Cards available in Spanish are indicated with an "S" after the Card No.

MSHA has developed a series of pocket cards covering a variety of topics as part of the Agency's continuing effort to protect the health and safety of our Nation's miners. These cards are available from the Academy at no cost. Be sure to include the Card No. and quantity when ordering.

g Best Pra	ctice Card Series (BP)	BP-11	Surface Mine, Powered Truck Haulage
BP-1	Brake Systems		Dumping Procedures
BP-1S	Sistemade Frenos	BP-12	Truckers' Training Checklist
BP-2	Cab Inspection	BP-13	Maintenance, Repair and Construction
BP-2S	Inspección de Cabina	BP-14	Operating Equipment Near a Body of
BP-3	Haulage Equipment Operators		Water
BP-3S	Operadores de Equipo de Transporte	BP-15	Contractors' Machinery
BP-4	Haulage Safety Attitude	BP-16	Contractors' Powered Haulage
BP-4S	Actitud Sobre la Seguridad en Equipo	BP-17	Electricity
	de Acarreos	BP-18	Drowning Prevention
BP-5	Highway Truck Pre-Operation	BP-19	Mechanics (MNM Contractors)
	Inspection	BP-20	Electrical Safety
BP-5S	Inspecciones Pre-Operativas par	BP-21	Cranes (MNM Contractors)
	a Camiones de carretera	BP-22	Welding/Cutting (MNM Contractors)
BP-6	100-Ton or Greater Truck Pre-	BP-23	Haulage (MNM Contractors)
	Operation Inspection	BP-24	Extended Cuts - Remote Control
BP-6S	Inspecciones Pre-Operativas para		Miners
	Camiones de 100 o más Toneladas	BP-24S	Cortes Extendidos Mineros Operando
BP-7	100-Ton or Less Truck Pre-Operation		Equipos a Control Remoto
	Inspection	BP-25	Remote Control Miners
BP-7S	Inspecciones Pre-Operativas para	BP-25S	Mineros Operando Equipos a Control
	Camiones de 100 o menos Toneladas		Remoto
BP-8	Pre- & Post-Operation Inspection of	BP-26	Roof Evaluation and Examination
	Surface Haulage Equipment	BP-26S	Evaluación y Examinación de Techos
BP-8S	Inspecciones pre-operativas y	BP-27	Retreat Mining
	post-operativas a los equipos de carga	BP-27S	Operaciones Mineras Finales
	de superficie	BP-28	Roof Bolting
BP-9	ROPS (Rollover Protective Structure)	BP-28S	Pernando Techos
	and FOPS (Falling Object Protective	BP-29	Moving to a New Location, Mine or
	Structure)		Job
BP-9S	ROPS (Estructura Protectora de	BP-29S	Moviéndose a Una Nueva
	Rodillos y FOPS (Estructura Protectora	Localizad	ción,
	Contra Caidas de Objectos)		Mina o Trabajo
BP-10	Steering	BP-30	Tire and Rim Safety (MNM)
BP-10S	La Dirección		

## POCKET CARDS

BP-31 BP-32	Drilling - Contractors (MNM) Blasting - Contractors (MNM)	BP-67	Responsibilities of Independent Contractors Working on Mine Property
BP-33 BP-34	Pressure Vessels (MNM) Surge Pile Safety	BP-68	Repair and Maintenance of Surface Equipment
BP-35 BP-36	Electrical Safety in Coal Mines Haulage Roads	BP-69	Falling/Sliding Material, Highwalls and Banks
BP-37	Highwall Drills	BP-70	Slips and Falls on Mobile Equipment
BP-38	Suggested Safety Measures for Operating Equipment on Surge Pile	BP-71	Geology and Mining - Ground Control for Underground Gold Mines
BP-39	Truck Drivers - Dump Sites	BP-72	Examination/Testing/Scaling - Ground
BP-40	Truck Drivers - Safe Operating		Control for Underground Gold Mines
<b>D</b> 0	Procedures	BP-73	Rock Bolting - Ground Control for
BP-41	Truck Drivers - Vehicle Capabilities	DI -73	Underground Gold Mines
BP-42	Truck Drivers - Verlicle Capabilities  Truck Drivers - Arrive Home Alive		Oriderground Gold Milles
BP-43	Coal Mine Roof Bolter Operators and	_	Hazard Card Series ( HH)
DD 44	Helpers	HH-1	Examination of Respirable Dust
BP-44	Underground Powered Haulage Safety		Controls at Underground Coal Mine
DD 45	for Coal Miners	HH-2	Mineral Dust Hazard and Sampling (C)
BP-45	Roof and Rib Safety in Coal Mines	HH-3	Polyurethane Foam Health Hazards
BP-46	Coal Mine Longwall Section Employees	(C)	
BP-47	Continuous Miner/Loading Machine	HH-4	Silica Exposure of Surface Coal Miners
	Operators and Helpers	HH-5	Hazards of Silica to Underground
BP-48	Conveyor Safety Tips for Laborers		Coal Miners
BP-49	Conveyor Safety Tips for Mechanics	HH-6	Silica Exposure of MNMMiners
BP-50	Conveyor Safety Tips for Plant	HH-7	Tips for Preventing Silicosis: If It's
	Operators		Silica, It's Not Just Dust (NIOSH)
BP-51	Conveyor Safety Tips for Supervisors	HH-8	Advisory Committee Recommendations
BP-52	Hazardous Conditions: Posting,		to Eliminate Black Lung and Silicosis
	Correcting, and Recording (Coal)	HH-9	Two Minutes on Silicosis for Metal and
BP-53	On-Shift Examination (Coal)	11110	Nonmetal Miners
BP-54	Preshift Examination (Coal)	HH-10	Two Minutes on Silicosis for Coal
BP-55	Weekly Examinantion (Coal)	111110	Miners
BP-56	Bucket Repair (Anthracite)	HH-11	Working in Confined Spaces (MNM)
BP-57	Crane Operation (Anthracite)	HH-12	Filter Self-Rescue Devices (MNM)
BP-58	Electrical (Anthracite)	HH-13	Hazards of Radon Progeny
BP-59	Hoisting/Man Trips (Anthracite)	HH-14	Poison Plants
BP-60	Roof Bolter (Anthracite)		
BP-61	Safety Reminders for Truck Drivers at	HH-15	Personal Noise Measurements (MNM)
	Dump Points (Anthracite)	HH-16	Working With Mercury (MNM)
BP-62	Slips or Falls Underground (Anthracite)	HH-17	"Watch Your Back" - Prevent Back
BP-63	Timberman/Miner (Anthracite)	111140	Injuries
BP-64	Working Around Bins, Hoppers, and	HH-18	Welding Hazards (MNM)
דט וכ	Draw-Off Tunnels (Anthracite)	HH-19	Mineral Dust Hazards and Sampling
BP-65	Winter Alert	1111.00	(MNM)
BP-66	MSHA Notice for Contractors	HH-20	Heat Stress
DL <b>-</b> 00	INION IM INCLICE TO CONTRACTORS	HH-21	Asbestos Hazards in the Mining Industry

## POCKET CARDS

HH-22	Coal Workers' Pneumoconiosis (Black Lung)	HH-27	Diesel Exhaust Gases - Carbon Monoxide (CO)
HH-23	Controlling Dust for a Healthier Work Environment	HH-28 HH-30	Carbon Monoxide and Mining Bloodborne Pathogens
HH-24	Respirable Dust Monitoring Using Single, Full-Shift Samples	HH-31 HH-32	Hearing Conservation Beryllium Hazards in the Mining
HH-25 HH-26	Cold Injuries Diesel Exhaust Gases - Nitrogen Dioxide (NO 2)		Industry

### The following cards may be of special interest to Independent Contractors.

BP-1 BP-1S BP-2	Brake Systems Sistemade Frenos Cab Inspection	BP-9S	ROPS (Estructura Protectora de Rodillos y FOPS (Estructura Protectora Contra Caidas de Objectos)
BP-2S	Inspección de Cabina	BP-10	Steering
BP-3	Haulage Equipment Operators	BP-10S	La Dirección
BP-3S	Operadores de Equipo de Transporte	BP-11	Surface Mine, Powered Truck Haulage Dumping Procedures
BP-4 BP-4S	Haulage Safety Attitude	BP-12	Truckers' Training Checklist
DP-43	Actitud Sobre la Seguridad en Equipo de Acarreos	BP-15	Contractors Machinery
BP-5	Highway Truck Pre-Operation	BP-16	Contractors Powered Haulage
<b>D</b> i 0	Inspection	BP-19	Mechanics (MNM Contractors)
BP-5S	Inspecciones Pre-Operativas par	BP-20	Electrical Safety
	a Camiones de carretera	BP-21	Cranes (MNM Contractors)
BP-6	100-Ton or Greater Truck Pre-	BP-22	Welding/Cutting (MNM Contractors)
	Operation Inspection	BP-23	Haulage (MNM Contractors)
BP-6S	Inspecciones Pre-Operativas para	BP-31 BP-32	Drilling - Contractors (MNM) Blasting - Contractors (MNM)
BP-7	Camiones de 100 o más Toneladas	BP-66	MSHA Notice for Contractors
BP-/	100-Ton or Less Truck Pre-Operation Inspection	BP-67	Responsibilities of Independent
BP-7S	Inspection Inspectiones Pre-Operativas para	2. 0.	Contractors Working on Mine Property
Di 70	Camiones de 100 o menos Toneladas	BP-68	Repair and Maintenance of Surface
BP-8	Pre- & Post-Operation Inspection of		Equipment
	Surface Haulage Equipment	BP-69	Falling/Sliding Material, Highwalls
BP-8S	Inspecciones pre-operativas y		and Banks
	post-operativas a los equipos de carga	BP-70	Slips and Falls on Mobile Equipment
	de superficie		
BP-9	ROPS (Rollover Protective Structure)		
	and FOPS (Falling Object Protective Structure)		
	Situdiale)		

This section is an alphabetical listing of available Informational Reports (Irs).

Informational Reports (IRs) are an on-going series of scientific and technical publications produced by MSHA. IRs are free of charge. Use the order blank in the back of this cat a log to re questIRs. Please or der by IR number and title.

## Analysis of Noise Reduction With Earmuff Hearing Protectors Under Field Conditions— Coal and Metal/Nonmetal

Re views 540 field tests com par ing A-weighted noise lev els mea sured in side and out side a va ri ety of ear muff hear ing pro tectors. The re port con cludes that the earmuffs effective ness in reducing noise fre quently falls far short of the man u fac turer's NRR (noise reduction rating).

MSHA 1994 42 pp

Cat No: IR 1221

Price: Free of charge

### Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers

De scribes the stan dard pro ce dures used by MSHA for cal i bra tion of cur rently ap proved per sonal samplers and as so ci ated equip ment and for main tenance of this equip ment. Su per sedes IR 1121.

MSHA 1996 19 pp

Cat No: IR 1240 Price: Free of charge

### Comparison of Infrared Absorbances for Standard Samples Prepared From Sieved and Nonsieved Quartz Reference Materials

MSHA an a lyzes re spi ra ble coal mine dust samples for quartz con tent as part of their pro gram to en force en vi ron men tal dust lev els as man dated by the 1977 Act. A quartz reference material is neces sary to pre pare cal i bra tion curves for the quantitative measurement of the min eral. This report

sum ma rizes re sults of a study con ducted to de termine if the calibration of x-ray diffraction in strumentation was significantly different after particles larger than 10 mi crometers in size were removed from the reference material.

MSHA 1994 11 pp

Cat No: IR 1223

Price: Free of charge

### Comparison of Noise Exposure Measurements Conducted With Sound Level Meters and Noise Dosimeters Under Field Conditions (C/MNM)

Makes absolute and relative comparisons between the measuring positions where noise do sime ters and sound level meters are used in as sessing noise exposures.

MSHA 1995 32 pp

Cat No: IR 1230

Price: Free of charge

## Dust Sampling and Laboratory Testing Procedures After Underground Coal Mine Explosions

Summarizes the meth ods for collecting samples of the coal and remaining dust taken after an underground coal mine explosion, and discusses the information obtained by analysis of each sample.

MSHA 1996 14 pp

Cat No: IR 1239

Price: Free of charge

## Effect of Threshold on Noise Dosimeter Measurements and Interpretation of Their Results, The

Dis cusses the var i ous func tions of the noise do sim e ter, and why data col lected with in stru ments that func tion at one set thresh old level may dif fer from that collected with an instrument that uses a dif ferent, or no, thresh old level. Recommendations are made to pro vide as sis tance in se lect ing the thresh old level of the do sim e ter in or der to achieve the de sired ob jec tive of the noise dose mea sure ment.

MSHA 1994 16 pp

Cat No: IR 1224

Price: Free of charge

### Evaluation of Gases From Mine Explosions by Elemental Balancing, The

Introduces a new in dex, called the (H/C) In dex, used in investigations of fire and ex plo sions to determine fuel composition.

MSHA 1996 31 pp

Cat No: IR 1231

Price: Free of charge

# Evaluation of Muff Type Hearing Protectors as Used in the Mining Industry—Coal and Metal/Nonmetal

Summarizes re sults of a study con ducted to eval urate muff type hearing protector devices (HPDs) worn by miners working in a mining environ ment. The study con cludes that field per for mance of muff type HPDs is significantly less than that predicted by the Environ mental Protection Agency Noise Reduction Rating.

MSHA 1994 21 pp

Cat No: IR 1222

Price: Free of charge

## Field Evaluations of Hearing Protection Devices at Surface Mining Environments — Coal and Metal/Nonmetal

Summarizes the results of a study conducted to eval u ate the effective ness of ear muff type hearing protection devices and their predict ability when they were being worn by miners performing nor mal work duties.

MSHA 1994 31 pp

Cat No: IR 1213 Price: Free of charge

### Injury Experience in Coal Mining, 1989-1998

Re views in de tail the oc cu pa tional in jury and ill ness experience of coal min ing in the United States for the years listed below. Sum mary ref er ence tab u lations are in cluded at the end of the re port.

1989	IR 1196	404 pp
1990	IR 1205	404 pp
1991	IR 1207	406 pp
1992	IR 1215	399 pp
1993	IR 1225	406 pp
1994	IR 1232	413 pp
1995	IR 1242	397 pp
1996	IR 1253	384 pp
1997	IR 1258	375 pp
1998	IR 1265	384 pp

Price: Free of charge

### Injury Experience in Metallic Mineral Mining, 1989-1998

Re views the occupational in jury and ill ness experience of metal lic min eral min ing in the United States for the years listed be low. Sum mary ref erence tab u la tions are in cluded at the end of the report

1989	IR 1197	295 pp
1990	IR 1201	299 pp
1991	IR 1208	290 pp
1992	IR 1218	273 pp
1993	IR 1226	276 pp
1994	IR 1233	290 pp
1995	IR 1243	286 pp
1996	IR 1254	285 pp
1997	IR 1261	284 pp
1998	IR 1266	280 pp

Price: Free of charge

### Injury Experience in Nonmetallic Mineral Mining (Except Stone and Coal), 1989-1998

Re views the occupational in jury and ill ness experience of nonmetal lic mineral mining (except stone and coal) in the United States for the years listed below. Sum mary reference tab u la tions are in cluded at the end of the report.

1989	IR 1198	321 pp
1990	IR 1202	324 pp
1991	IR 1209	312 pp
1992	IR 1219	299 pp
1993	IR 1227	296 pp
1994	IR 1234	297 pp
1995	IR 1244	305 pp
1996	IR 1255	300 pp
1997	IR 1262	290 pp
1998	IR 1267	291 pp

Price: Free of charge

#### Injury Experience in Sand and Gravel Mining, 1989-1998

Re views in de tail the oc cu pa tional in jury and ill ness experience of sand and gravel min ing in the United States for the years listed be low. Sum mary ref erence tab u la tions are in cluded at the end of the report.

1989	IR 1199	107 pp
1990	IR 1204	115 pp
1991	IR 1211	114 pp
1992	IR 1217	107 pp
1993	IR 1229	115 pp
1994	IR 1235	112 pp
1995	IR 1246	111 pp
1996	IR 1257	109 pp
1997	IR 1259	112 pp
1998	IR 1269	114 pp

Price: Free of charge

### Injury Experience in Stone Mining, 1989-1998

Re views in de tail the oc cupa tional in jury and ill ness experience of stone min ing in the United States for the years listed below. Sum mary reference tabulations are in cluded at the end of this report.

IR 1200	512 pp
IR 1203	510 pp
IR 1210	516 pp
IR 1216	507 pp
IR 1228	507 pp
	IR 1203 IR 1210 IR 1216

1994	IR 1236	510 pp
1995	IR 1245	519 pp
1996	IR 1256	522 pp
1997	IR 1260	521 pp
1998	IR 1268	531 pp

Price: Free of charge

### Installation of MSHA-Accepted Ground Wire Monitors, Guidelines for the (C)

Containsmanufacturers' installationdiagrams for undergroundimpedance monitors, underground continuity monitors, and surface monitors.

MSHA 1996 128 pp Cat No: IR 1241

Price: Free of charge

## Introduction to Operator Air Sampling Programs

The first in a series of reports as sisting mine oper a tors in determining the adequacy of their control measures and in planning for effective monitoring of their employ ees' exposure to silica dust and other air borne contaminants.

MSHA 1999 23 pp

Cat No: IR 1250 Price: Free of charge

### Magnitude of the Noise-Induced Hearing Loss Problem in the Mining Industries, The

Pro longed ex po sure to haz ard ous noise lev els results in a per son de vel op ing noise-in duced hear ing loss (NIHL). The analys is in this report demonstrates con clusively that NIHL is a major health problem affecting the mining in dustries.

MSHA 1994 18 pp

Cat No: IR 1220 Price: Free of charge

### Material Instability Hazards in Mine-Processing Operations

Many ac ci dents oc cur in the min ing in dus try be cause of in sta bil ity of material during han dling and processing operations. This report provides in formation on safe working procedures at stock piles and surge piles.

MSHA 1994 10 pp

Cat No: IR 1212 Price: Free of charge

### Noise Exposure in U.S. Coal Mines

This paper presents the mean and standard deviation of over 60,000 full-shift noise dose mea surements for various under ground and surface coal mining occupations. The report also compares and contrasts the levels with his torical noise exposure measure ments for selected coal mining occupations that were published in the 1970s.

MSHA 1994 46 pp

Cat No: IR 1214

Price: Free of charge

### Presentations From the 1992 Coal Mining Impoundment Informational Meeting

This report contains 15 presentations about is sues in volved in de sign and construction of dams as so ciated with coal mining.

MSHA 1993 175 pp

Cat No: IR 1206

Price: Free of charge

### Trouble-Shooting Guide for Roof Support Systems, A

Provides a logical sequence to resolving the most common problems en countered with roof supports.

MSHA 1196

104 pp

Cat No: IR 1237

Price: Free of charge

The videotapes and training materials in this section have become dated due to their age, changes in technology, or changes in mining regulations. The materials are still available because they may represent the sole source of some of the information. There may be inaccuracies or outmoded mining equipment or systems displayed. Portions of the materials may be used as is; however, the dated portions should be pointed out when presenting them in a training or informational situation.

### HISTORICAL VIDEOTAPES

### Air We Breathe in Industrial Environments, The (C/MNM)

Dis cusses com po si tion and im por tance of air in relation to various working en viron ments. De scribes in dus trial health (breathing) haz ards en coun tered. Ex plains need for eval u a tion of working conditions, for observation of safety precautions and for protection of workers from noxious gases and oxygen deficiency by using protective equipment and proper ventilation.

BuM 1972 16 min

Cat No: VC 841 Price: \$8.00

### Breathe and Live: Ventilation in Metal and Nonmetal Mines

Fo cuses on why mine ventilation systems are an un der ground miner's per sonal life line. Shows components of mine ventilation systems (in cluding main and booster fans, air curtains, ventilation tubes, doors and regulators). Emphasizes importance of good maintenance. Re-creates several fatal accidents caused by contaminated air, in adequate ventilation or fail ure to warn work ers away from un ventilated "dead end" zones. Stresses importance of frequent safety checks with in struments which measure quality and quantity of ventilating air (a responsibility of minemanagement).

BuM 1973 21 min

Cat No: VC 845 Price: \$8.00

### Cabs and Canopies for Your Safety (C)

Points out need for cabs and can o pies on un derground min ing equip ment to pro tect min ers from falls of roof and ribs. Uses scenes taken after three ac tual roof fall ac ci dents (in which fallen coal and rock covered the mining equip ment). Demon strates that, in each case, the oper a tores caped un harmed be cause of the protective can opy on the machine. Presents in-the-mine in terviews with the oper a tors in volved in these near-fatal accidents—work ers relate what hap pened and why they are con vinced the can opies saved their lives.

MESA 1974 10 min

Cat No: VC 854 Price: \$8.00

### Coal Dust: Hazards and Controls

Ex plains some of the more se ri ous dan gers of coal mine dust and its effect on the health and safety of bothunderground and surface miners. Uses actual mining op er a tions, live action foot age and de tailed an i ma tion to show var i ous ways coal dust is produced, con se quences of long-term ex po sure (black lung) and how dust can be con trolled in the min ing en vi ron ment. Shows sev eral meth ods of dust sam pling. Demonstrates various ventilation techniques, water sprays and other dust suppres sion de vices. Em pha sizes use of proper face ven tilla tion and water sprays to ef fec tively re move, di lute and suppress air borne dust. Ex am ines ad van tages of these con trol de vices and sys tems as ap pli ca ble to dif fer ent mining methods and situations. Recommends ongoing dust sampling and eval u a tion pro grams be in place at all mines.

MSHA Rev 1980 14 min

Cat No: VC 829 Price: \$8.00

#### **Electrical Hazards in Underground Coal Mining**

Points out some of the more prev a lent elec tri cal hazards which may be encountered in underground coal mining. Re-creates accidents involving operating, maintaining and repairing electrical power distribution centers, switching gear, cables and other high-volt age equipment. Stresses proper training and qualifications for miners working on electrical installations, machinery and circuits. Describes proper work procedures which should be followed at all times — if electric ity is to be effectively and safely utilized in underground coal mining.

MESA 1975 13 min

Cat No: VC 857 Price: \$8.00

#### Electrical Lock-Out Procedures (C/MNM)

Ac ci den tal starting of equip ment or the ener giz ing of elec tri cal power cir cuits has caused many in juries and fa tal i ties in the mining and milling in dus try. Re-creates some of these ac ci dents and points out po ten tial haz ards connected with specific jobs. Empha sizes need for immediate and thor ough training in proper lock-out procedures for all personnel who work with or around electrical in stal lations (in cluding personnel who operate electric-powered machinery and equipment).

MESA 1976 11 min

Cat No: VC 864 Price: \$8.00

### Extensible Line Curtain (C)

This program shows an in no vative procedure that uses extensi ble line curtain for coal mine face ven tilation.

MSHA 1986 15 min

Cat No: VC 897 Price: \$8.00

#### Fire Fighting in the Mineral Industry (MNM)

Con cerns tech niques of fire fighting in noncoal mining and re lated in dus tries. Shows the classifications of fires (A, B, and C). Provides in struction on proper use of various types of extinguishers. Demon strates how to control fires by "seal ing them off" with foam, as phalt, and other chemical seal ants.

BuM 1970 16 min

Cat No: VC 827 Price: \$8.00

#### Haulage Safety in Low-Coal Mines

De picts how ac ci dents can be pre vented (or can hap pen) during un der ground trans portation of personnel, coal and supplies through tun nels in low-coal mines. Con trasts safe haul age practices with accidents. Uses staged "near misses" to show consequences of care less ness.

BuM 1971 15 min

Cat No: VC 839 Price: \$8.00

### Hazard Recognition and Avoidance in Surface Coal Mining

Miners who are in experienced and unfamiliar with the working en viron ment, equip ment and mining pro ce dures are of ten ex posed to po ten tial safety hazards for which they are largely un pre pared. De scribes some of the more com mon dan gers encountered (in cluding fail ure of highwalls and spoil banks, slips and falls, drill ing and blast ing and not wearing or using proper safety clothing or equipment). Addresses machinery/vehicle, mechani cal/electrical, welding/cutting and other maintenance/repair haz ards. Gives examples of dan ger signs and warn ings which usu ally pre cede a haz ard. Out lines safety pre cau tions needed to avoid the haz ard. Em pha sizes min ers must learn how to recognize and avoid unsafe conditions and situations by staying alert, obeying company safety rules and following safe working practices at all times.

MSHA 1980 9 min

Cat No: VC 891 Price: \$8.00

#### Hazard Recognition and Avoidance in Underground Coal Mines

Un der ground coal min ing is an in her ently haz ard ous oc cu pa tion, but one which can be made rel atively safe if min ers learn to rec og nize and avoid the as so ci ated haz ards. Iden tifies some of the more com mon dan gers (in clud ing un safe acts and con ditions) min ers may en coun ter while car ry ing out their every day work as sign ments. Demonstrates safe work prac tices and pro ce dures needed to avoid such prob lems and pit falls. Urges min ers to stay alert, work safely and re port un safe con ditions they can not correct.

MSHA 1981 11 min

Cat No: VC 893 Price: \$8.00

### Illumination in Underground Coal Mines

Traces de vel op ment of un der ground mine il lu mi nation from the ear li est days of can dles and car bide lamps to to day's more efficient and safer elec tric light ing equip ment. Dem on strates ad e quate light ing which helps min ers better see equip ment, other workers and roof and rib con di tions (and to per form their jobs more safely). Shows var i ous types of permis si ble light ing (be ing tested and used in both un der ground work ing places and surface laboratories). Explains light-measuring techniques and methods of eval u at ing light ing sys tems. Informs view ers of re quire ments of Fed eral il lu mination regulations and how these apply to specific mining situations.

MSHA 1980 15 min

Cat No: VC 871 Price: \$8.00

### Magic of Fire, The (C/MNM)

Deals with fire, its composition, uses and control. Tabletop displays and laboratorydemonstrations illustrate how fires and explosions oc cur. Describes the safe use and control of commonly used gases and flammable liquids. Shows various in dustrial fires (and fire haz ards in the home) and gives instructions on fire prevention.

BuM 1965 23 min

Cat No: VC 809 Price: \$8.00

### Management's Role in Health and Safety (C)

Pres ents a well-planned and well-ex e cuted mine health and safety pro gram in action. Uses scenes at both under ground and surface facilities. Outlines a safety pro gram (in detail) and its application to on-the-jobsafety situations and related mining operations. Defines management's responsibility for the health and safety of miners. Points out various en viron mental health problems and safety haz ards. Offerspossible solutions (with emphasis on effective safety training).

BuM 1972 15 min

Cat No: VC 842 Price: \$8.00

### Oh! My Aching Back (C/MNM)

Back in ju ries from lift ing ob jects that are too heavy and/or from us ing in cor rect lift ing tech niques are a common oc cur rence in many in dus tries. Shows workers the cor rect method of lift ing (in clud ing good pos ture, po si tion ing and smooth ap pli ca tion of lifting power). Uses flex i ble train ing mod els (which sim u late the hu man back bone, mus cles and ligaments) to il lus trate how strains oc cur and how discs are "pinched." Uti lizes live-action scenes in un derground mines and in dus trial plants to empha size the need for proper lift ing and han dling of work ing tools and materials.

BuM 1965 21 min

Cat No: VC 810 Price: \$8.00

### Open-Pit Mining Hazards (MNM)

Moving ma chin ery and moving earth sup ply the basic in gre dients for a variety of possible haz ards in mining ore from open pits. Uses staged accidents (involving dump trucks, power shovels, front-end loaders, rail haul age and highwall blasting) to show what hap pens as the result of workers' care lessness, over looked safety precautions and/or unsafe machinery and mining methods. Explains why the accidents hap pened and stresses the correct and safe way to perform various mining jobs to prevent future accidents.

BuM 1967 17 min

Cat No: VC 816 Price: \$8.00

### Operation of the Quest Micro-15 Noise Dosimeter (C/MNM)

De scribes the Quest Mi cro-15 Noise Do sim e ter and the functions of its component parts, the operation and use of the instrument for field compliance mea sure ments, and how to per form field cali bra tion and generalmaintenanceprocedures.

> MSHA 1988 28 min

Cat No: VC 931 Price: \$8.00

### Orientation and Indoctrination of Safe Workmen (MNM)

Fol lows a group of new em ploy ees through preemploy- ment testing, hir ing and actual working sit u a tions. The in dus try is a gyp sum products manufacturing plant, but the orientation and in doctrination policies and proce dures may easily be applied to other mining or man ufacturing or ganizations. Takes view ers on a tour of the plant and fol lows new employeesthroughinterviews, physical exami na tions, class room in struction and on-the-job train ing ses sions. Stresses job safety as an in te gral part of pro duction. High lights the value of accident prevention training for all employ ees.

BuM 1966 27 min

Cat No: VC 813 \$8.00 Price:

### REAP — Roof and Rib Fatalities — Coal

These vid eos dis cuss the Roof and Rib Fa tal ities for 1992-1994, and clas sify each fa tality un der one of three gen eral causes:

- 1. Failure to comply with the approved roof control plan;
- Failure of the roof control system; and
- 3. Traveling or working inby supported roof. 15 min each MSHA

Cat No: VC 849 (1992)

VC 825 (1993) VC 876 (1994)

Price: \$8.00 each title

### Repeat Violation Reduction Program (C/MNM)

Pres ents a sys tem atic ap proach to look ing at ci tations and or ders is sued at an op er a tion in or der to de ter mine their root cause and ways to elim i nate them.

> MSHA 1989

25 min

Cat No: VC 880 Price: \$8.00

### **Roof Bolting in Coal Mines**

Stresses the importance of roof bolt ing to the coal mining in dustry. Explains principles and purposes of roof bolting. Uses working models, lab or a tory demonstrations, actual under ground applications and tests. Shows how min ing op er a tions and bolting methods are coordinated and emphasizes safety through out the roof con trol pro cess.

> BuM 1973 19 min

Cat No: VC 808 Price: \$8.00

#### Safety Practices in Low-Coal Mining

Uses live-action under ground photography to show spe cial haz ards work ers must guard against in thin-seam mines. Il lus trates how re stricted work space, cur tailed field of vi sion and cramped body po si tion can in ten sify dan ger when work ing with fast-moving, high-powered machines. Emphasizes team work, alert ness, and "know-how."

BuM 1971 15 min

Cat No: VC 840 Price: \$8.00

### Slope Stability of Waste Dams and Embankments (C/MNM)

The dis posal of min ing waste and re fuse is an ever in creasing problem. Main taining the stability and safety of waste stor age fa cil i ties is part of that prob lem. Points out importance of properly designed and con structed waste dams and em bank ments to show the de structive after math of coal wastebank failures and landslides. Combines an imation sequences with ground-level and ae rial photography to ex plain var i ous types of slope fail ures, de scribe in her ent and po ten tial haz ards and out line a constructive program of in spection, detection and correction. Demonstrates on-site monitoring methods (some meth ods us ing off-site com puter analy ses).

1979 MSHA 28 min

Cat No: VC 870 Price: \$8.00

### Supervisor's Responsibilities in Roof Control (C)

Helps front line under ground coal mine supervisors under stand what their duties are to the miners, as well as to management, concerning safety in the working place.

MSHA 1988 11 min

Cat No: VC 919 Price: \$8.00

### Supervisory Training Series (MNM)

Se ries is de signed to mo ti vate metal mine su per visory personnel to stress safety in all fac ets of the mining process.

The two video tapes may be shown in dependently or as a series (in the following sequence).

#### • Man and His Habits (MNM)

Depicts how careless habits may endanger safety at home and on the job. Shows workers how to acquire safe work habits by practicing safety everywhere.

BuM 1969 13 min

Cat No: VC 822 Price: \$8.00

### • Safety Consciousness (MNM)

Demonstrates how various people at work and play develop safe behavior in their daily activities.

BuM 1969 10 min

Cat No: VC 824 Price: \$8.00

#### Transportation and Communication in Underground Coal Mines

Emphasizesimportance of be ingable to recognize and avoid potential safety haz ards in under ground minetransportation. Reenacts different accidents involving the transporting of workers and materials. Describes various under ground mine communication systems. Uses on-the-job scenes to explain the purpose of communication systems in over all mining operations. Conveys the underlying safety lesson that both transportation and communication are essential to all under ground mining operations. Stresses that the health and safety of mine workers is of tende pendent upon the safe and proper use of

these systems.

MSHA 1981 9 min

Cat No: VC 892 Price: \$8.00

### **Underground Coal Mine Blasting**

Be gins with the safe stor age of per mis sible ex plosives, detonators and blasting devices in surface and under ground facilities. Progresses through the trans por ta tion and han dling stages (and up to the ac tual blasting of the coal face it self). Shows and ex plains how the shot firer safely per forms the complete blasting operation (preparing the primers, loading the shotholes, stemming, wiring and firing the round). Demon strates the compressed air method of blasting coal. Il lustrates (through an imation) what takes place in side the shothole when an Airdox shell is "fired." Stresses safe work practices throughout.

MESA 1975 19 min

Cat No: VC 856 Price: \$8.00

### Why Roof Control Plans (C)

Roof and rib falls are still the most dan ger ous hazard an un der ground coal miner faces. The premise of this film is that the haz ard can be pre vented or re duced by following an ap proved roof con trol plan. Ex plains basic plans, gives ex amples and describes plan implementation. Demonstrates important items in cluded in the plan (such as types of support, areas covered and rock stratadia grams) under actual mining conditions. Shows mining equipment and materials, bolting machines, roof bolts and tim bers in use. Urges miners to be come familiar with their mine's roof control plan.

MSHA 1981 16 min

Cat No: VC 874 Price: \$8.00

### HISTORICAL TRAINING MATERIALS

### Blasting From the Solid, Underground Coal Mines

Slide program. General information. Divided into five parts:

Transportation to Mine

Surface Storage

Transportation Underground

Storage Underground Blasting Underground

Trainer's book indudes a list of objectives, a course outline, a list of required materials and a suggested lec ture (with in struc tor notes on a slide-by-slide basis). Materials are:

Book 29 pp Slides 53 slides

MSHA 1983

Cat No: IG 35

Price: \$14.00 (1 book, 53 slides)

### Chemistry, Analysis and Interpretation of Mine Atmospheres (C/MNM)

Instructor's guide for teach ing mine gases, sampling of mine fires, gas sampling methods, hand-held detection devices and mathe matical calculations of mine gases as a result of mine fires.

MSHA 1988

Cat No: IG 69

Price: Free of charge (1 book) \$4.00 (each additional copy)

#### **Coal Dust**

Ex am ines health and safety haz ards of coal dust in un der ground mines. Pres ents the ory and pro cedures for mine ven tillation and worker pro tection. Printed in two volumes: Work Book and Answer Book.

MESA 1976 130 pp

Cat No: PI 9

Price: Free of charge (1 set) \$4.00 (each additional set)

#### Coal Mine Roof and Rib Control

Man ual covers the most dan ger ous haz ard to under ground coal miners – fall of roof and ribs. Describes ge ol ogy of coal and rock strata. Explains effects of mining on strata. Covers methods of support and roof control plans. Gives some coverage to in spection and testing of roof and ribs and prevention of roof and rib fall accidents.

MSHA 1980 49 p

Cat No: SM 18

Price: Free of charge (1 book) \$2.00 (each additional copy)

#### Cyanide Mill Reagents (MNM)

Intended to assist mine, mill and plant operators and mine in spectors in recognizing and controlling hazards associated with the handling, storage, use and disposal of cyanide reagents. In dicates which 30 CFR health standards apply to cyanide use and explains pur poses and application of those standards. Discusses recommended work practices.

MSHA 1981 12 pp

Cat No: OT 1

Price: Free of charge

### **Electrical Hazards (C)**

Treats the numer ous haz ards as so ciated with power distribution centers, trailing cables, trolley wires and other electrical equipment used in mining oper a tions. Printed in two volumes: Work Book and Answer Book.

MESA 1976 170 pp

Cat No: PI 5

Price: Free of charge (1 set) \$4.00 (each additional set)

### How to Tailor Off-The-Shelf Training Materials (C/MNM)

Designed to assisttrainers. Offers suggestions on personalizing off-the-shelf training materials.

WV University Mining Extension Service 1981 47 pp

BuM Con tract JO188069 MSHA Reprint 1983

Cat No: IG 8

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Industrial Hygiene for the Mining Industry (C/MNM)

De scribes ba sic con cepts of in dus trial hy giene and hu man phys i ol ogy and how they are af fected by min ing con di tions. Also in cludes ma te rial on measur ing in stru ments and de vices used in in dus trial hygiene.

MSHA 1986 243 pp

Cat No: PI 12

Price: Free of charge (1 book) \$5.00 (each additional copy)

### **Introduction to Underground Coal Mining**

Covers ba sic min ing op er a tions and haz ards, mine safety and health, safe prac tices in min ing and Fed eral mine laws.

MESA 1977 265 pp

Cat No: PI 1

Price: Free of charge (1 book) \$5.00 (each additional copy)

### Koehler and Wolf Permissible Flame Safety Lamps (C/MNM)

Designed to aid miners in developing abasic knowledge of oxygendeficiency and a working knowledge of flame safety lamps.

BuM 1972

MSHA Rev 1990 21 pp

Cat No: IG 15 (1 book, 24 slides)

VC 832 (13 minute videotape)

Price: Free of charge (1 book)

\$4.00 (1 book, 24 slides) \$8.00 (VHS videotape)

### Laboratory Safety (C/MNM)

Gives an overview of accident causes and accident prevention techniques when dealing with energy sources and hazardous materials found in laboratories.

Note to Trainer: Designed primarily for entry

level laboratory workers.

MESA 1976 27 pp

Cat No: SM 26

Price: Free of charge (1 book) \$2.00 (each additional copy)

### Milling and Crushing (MNM)

Reviews health and safety hazards associated with milling and crushing operations.

MESA 1978 200 pp

Cat No: PI 4

Price: Free of charge (1 book) \$4.00 (each additional copy)

#### Mine Gases (C)

Examines the various atmospheric components found in under ground mines and describes the haz ards of methane, carbon monoxide, sulfur dioxide, hydrogen sulfide, etc.

MESA 1977 207 pp

Cat No: PI 2

Price: Free of charge (1 book) \$5.00 (each additional copy)

#### Radiation Hazard in Mining, The

Deals with the oc cur rence of lung can cer from breathing radio active dust particles. Covers radon daughter hazards, radiation control and medical surveil lance mea sures for mine per son nel.

MESA 1978 24 pp

Cat No: SM7

Price: Free of charge (1 book) \$2.00 (each additional copy)

#### Roof and Rib Control (C)

Ex am ines the na ture of a mine roof and de scribes mea sures that can be taken to min i mize the dan ger of roof and rib falls in underground mines.

MSHA 1982

113 pp

Cat No: PI 3

Price: Free of charge (1 book) \$4.00 (each additional copy)

### Substance Abuse in Mining (C/MNM)

Designed to high light those fatal and serious accidents in coal and metal/non metal mines in which sub stance abuse was a contributing factor. The pack age can be used for training ses sions and safety talks.

MSHA 1987

11 pp

Cat No: OT 24

Price: Free of charge (1 book, 10 slides)

#### **Surface Mining**

Examineshazards common to sur face mines, including heavy equipment operations, highwalls, slips and falls, explosives and plant operation. Printed in two volumes: Work Book and Answer Book.

MESA 1976

235 pp

Cat No: PI 10

Price: Free of charge (1 book) \$5.00 (each additional copy)

### **Underground Coal Haulage and Transportation**

Fo cuses on safety haz ards of the var i ous haul age sys tems used in un der ground mines to trans port min ers, coal, equip ment, and sup plies.

MSHA 1983

203 pp

Cat No: PI 7

Price: Free of charge (1 book)

\$5.00 (each additional copy)

### The following codes are used in the INDEX.

CI	Course of Instruction	PI	<b>Programmed Instruction Books</b>
IG	Instructional Guide	SM	Safety Manuals
IR	Informational Reports	VC	Videotapes
OT	Other Materials		•

### New items are shown in bold type.

ı	Page		Page
ABANDONED MINES		Injury Experience in Metallic Mineral	
Abandoned Mines Booklet (C/MNM) (OT)	18	Mining, 1989-1998 (IR)	. 50
Accident Prevention and Investigation		Injury Experience in Nonmetallic Mineral Mining (Except Stone and Coal), 1989-1998 (IR)	. 51
Accident Analysis and Problem Identification for Coal Mines (IG)	18	Injury Experience in Sand and Gravel Mining, 1989-1998 (IR)	
Accident Analysis and Problem Identification for Metal and Nonmetal		Injury Experience in Stone Mining, 1989-1998 (IR)	
Mines (IG)	18 18	Laboratory Safety (SM)	
Accident Prevention (C/MNM) (SM) Accident Reduction Program/Post	18	Workmen (MNM) (VC)	
Accident Remedies, Technical Support (C/MNM) (VC)	2	Safety On or Near the Water (MNM) (VC)	
Ask the Right Questions (VC)	2	• •	
Degraded Image Hazard Recognition (C) (IG)	23	Slips, Trips, and Falls	
Fall Protection: Your Lifeline to Safety	_	Accident Prevention (IG)	. 44
(C/MNM)	5	A M	
Surface Coal Mining (VC)	54	Anthracite Mining Anthracite Mining Workbook (PI)	. 20
Hazard Recognition and Avoidance in Underground Coal Mining (VC)	55	Anthracite: Pre-Shift Examinations of Underground Mines (VC)	
Hazard Recognition Training Program for Construction, Maintenance, and		Best Practice Card Series	
Repair Activities (IG)	28	Anthracite Coal Mining (VC)	. 8
Hazard Recognition Training Program for Underground Limestone (IG)	28	On-The-Job Training Modules – Anthracite and Bituminous Coal Preparation Plants	
Historical Mining Disasters (OT)	28	and Shops (IG)	. 33
Injury Experience in Coal Mining, 1989-1998 (IR)	50	On-The-Job Training Modules – Surface Anthracite (IG)	34

F	Page		Page
On-The-Job Training Modules – Underground Anthracite (IG)  Timbering in Underground Anthracite Mines (VC)		Draeger OXY-SR 60B Self-Contained Self-Rescuer (IG)	. 32
Back Injuries  Back Injuries in the Mining Industry (SM)  Control of Back Injuries in Mining (VC)  Health Hazard Card Series  Oh! My Aching Back (CMNM) (VC)  Scientific Look at Back Belts (VC)	20 3 47 55 13	Permissible Draeger 810 Respirator for Self-Rescue (IG)	. 11
Bins and Hoppers  Bins and Hoppers Safety Awareness Program (C/MNM) (IG)	20 5 43 15	Cabs and Canopies Cabs and Canopies for Your Safety (C) (VC)	. 10 . 10
BLASTING AND EXPLOSIVES Blaster's Training Program for Independent Contractors (C/MNM) (IG) Blasting From the Solid, Underground Coal Mines (IG) Blasting Hazard Awareness: Surface and Underground Coal Mines (IG) Blasting Hazard Awareness: Surface Metal and Nonmetal (IG) Blasting Hazard Awareness: Underground Metal and Nonmetal (IG) Blasting Requirements - Surface Coal (CI) Blasting Requirements - Underground Coal (CI) Explosives Underground - Handling Explosives in Modern Mines (MNM) (VC) Underground Coal Mine Blasting (VC)	21 21 21	COAL MINING — GENERAL  Annual Refresher Training Games (C) (IG)  Best Practices Cards  Coal Country (OT)  Coal Mine Maps (SM)  Coal Mining (SM)  Combustible Materials and Rock Dusting  (C) (CI)  Hazard Recognition and Avoidance in  Surface Coal Mining (VC)  Hazard Recognition and Avoidance in  Underground Coal Mines (VC)  Illumination in Underground Coal Mines  (VC)  Introduction to Underground Coal  Mining (PI)  Mine Maps - Underground (C) (CI)  Part 48 Training - Coal (IG)  Safety Issues in Deep Cut Mining (Small	. 46 . 21 . 22 . 22 . 22 . 54 . 55 . 55 . 59 . 31 . 37
BREATHING APPARATUS Draeger BG 174A Breathing Apparatus, Using the (IG)	23	Mines Tech Transfer) (VC)	. 56

	Page		Page
Statistical Profile of Underground Coal Mines: Differences Associated with Mine Size (VC)		Dust Sampling and Laboratory Testing Procedures After Underground Coal Mine Explosions (C) (IR)	
Surface Installations (C) (CI) The Time Was Right! Mary Lou George	43	Dust – What You Can't See CAN Hurt You! (C) (OT)	. 23
(C/MNM) (VC)	15 57	Health Hazard Card Series Inspection Information Related to Silica Exposures of Surface Coal Miners (VC)	
See also Anthracite See also Blasting and Explosives		Introduction to Operator Air Sampling Programs (IR)	
CONTRACTORS  Best Practice Card Series	. 46	Plain Talk About a Serious Problem Silicosis (VC)	
Surface Contractor Training Program (C/MNM) (OT)	42	(MNM) (VC)	
CONFINED SPACES  Confined Spaces in Mining (VC)		to You? (C/MNM) (VC)	
Conveyors Conveyor Safety (C/MNM) (VC)	3	Electrical Grounding (C/MNM) (VC) Electrical Hazards (C) (PI)	. 58
DUST Advisory Committee Recommendations to Eliminate Black Lung and Silicosis		Electrical Hazards Awareness Program (C/MNM) (IG)	
(C)(OT)	. 19	Electrical Hazards in Underground Coal Mining (VC)	. 54
for Coal Mine Respirable Dust Samplers (IR)	49 58	(VC)	
Coal Dust: Hazards and Controls (VC) Combustible Materials and Rock Dusting	53	Lock Out and Tag for Safety (VC)	. 9
(C)(CI)	. 22	Pathway to Safety (VC)  Permissibility - Electric Face Equipment	
and Nonsieved Quartz Reference Materials (IR)	49	(C/MNM) (SM)	
Dust Control - It's Everyone's Business (VC)	. 4		

Р	age		Page
FATALITIES		Fire Fighting in the Mineral Industry	
Fatal Accidents at Small Crushed Stone		(MNM) (VC)	
and Sand and Gravel Mining Operations,		Fire Protection (C/MNM) (CI)	
1994-1999 (MNM) (OT)	24	Fire Safety (C/MNM) (SM)	
Fatal Accidents Involving Construction,		Fire Suppression - How It Works (C) (VC)	. 6
Maintenance and Repair at Coal Mines,		Magic of Fire, The (C/MNM) (VC)	. 55
1996-1999 (OT)	24		
Fatal Accidents Involving Construction,		FIRST AID	
Maintenance and Repair at Metal/	24	First Aid (C/MNM) (SM)	. 26
Nonmetal Mines, 1996-1999 (OT)	24	First Aid Book (C/MNM) (IG)	
Fatal Accidents Involving Contractors		First Aid Instructor's Guide (C/MNM) (IG)	
at Coal and Metal/Nonmetal Mines, 1996-1999 (OT)	25	First Aid Video (C/MNM) (VC)	
` ,	20	Harvey Roles I (MNM) (VC)	
Fatal Accidents Involving Conveyors at Coal and Metal/Nonmetal Mines,		Harvey Roles II (C) (VC)	
1990-1999 (OT)	25		. 0
Fatal Accidents Involving Drowning at		Games	
Coal and Metal/Nonmetal Mines,			40
1996-1999 (OT)	25	Annual Refresher Training Games (C) (IG)	
Fatal Accidents Involving Independent		Safety Basketball (MNM) (IG)	. 40
Contractors at Coal Mines,		_	
1996-1999 (OT)	25	GASES	
Fatal Accidents Involving Independent		Chemistry, Analysis and Interpretation	
Contractors at Metal and Nonmetal		of Mine Atmospheres (C/MNM) (IG)	. 58
Mines, 1996-1999 (OT)	25	Compressed Gases: The Correct Way to	
Fatal Accidents Involving Roof Falls in	0.5	Use Acetylene and Oxygen for Cutting	_
Coal Mining, 1996-1998 (OT)	25	(C/MNM) (VC)	3
Fatal Alert: Entry Into Storage Silos (VC)	5	Evaluation of Gases From Mine Explosions	50
Fatal Illustration Program (CMNM)	26	by Elemental Balancing, The (IR)	50
(OT)	26	Koehler and Wolf Permissible Flame Safety Lamps (CMNM) (IG/VC)	. 59
Haulage Fatalities – Surface Coal	27	Mine Gases (C/MNM) (SM)	
(1996-1999) (OT)	27		59
Nonmetal (1996-1999) (OT)	27	Mine Gases (C) (PI)	59
	21	Compressed Gases (C/MNM) (VC)	. 14
Haulage Fatalities – Underground Coal (1996-1999) (OT)	27	Compressed Cases (Children) (VO)	. 17
	21		
Surface Coal Truck Haulage Fatalities of 1993 (VC)	15	GROUND CONTROL	
01 1993 (VO)	13	Barriers to the Prevention of Ground	2
_		Fall Accidents (C) (VC)	. 3
FIRE		Ground Control in Surface Mining (C) (VC)	. 7
Escape From Mine Fires (VC)	5		. /
Fire Extinguishers (C/MNM) (VC)	6	Ground Support It's Important (Miner Mike Saves the Day) (MNM)	
		(VC)	. 7

	Page		Page
Guarding		Surface Haulage Metal/Nonmetal Mine	40
Equipment Guarding, MSHA's Guide to		Inspector Training (CI)	
(C/MNM) (OT)	24	Surface Haulage Safety (C/MNM) (SM)	. 42
		Surface Powered Haulage Safety	40
Haulage		(C/MNM) (IG)	43
Air Brake System Safety (C/MNM) (VC)	2	Tire and Rim Safety Awareness Program (C/MNM) (IG)	43
Analysis of Underground Powered		Traffic Control at Surface Mines and	70
Haulage Lost Time Accidents,		Installations, Guidelines for	
January 1990-December 1999	40	(C/MNM) (OT)	44
C/MNM) (OT)	19	Truck Haulage Safety Series	
Automatic Emergency Parking Brakes		(Coal and MNM) (VC)	15
Best Practice Card Series		Underground Coal Haulage and	
Blind Spots Can Kill (C/MNM) (VC)		Transportation (PI)	. 60
Buckle Up On-The-Job (VC)	3	Underground Haulage Hazards	
Coal Dump Point Safety (VC)	. 3	(MNM) (VC)	. 16
Customer and Delivery Truck Drivers		Underground Haulage, Transportation	
Hazard Training (MNM) (VC)	4	and Machinery (C) (CI)	. 45
Dawn of a New Day: Continuous	4	What You Can't See Could Kill	47
Haulage Safety (C) (VC) Diesel Regulations - Heavy Duty	4	Someone (CMNM) (VC)	. 17
Vehicles (VC)	4		
Diesel Regulations – Light Duty	7	Hoisting	
Vehicles (VC)	4	Haulage and Hoisting in Underground	_
Good Berms Save Lives (MNM) (VC)	7	Anthracite Coal Mining (VC)	
Haulage and Hoisting in Underground	•	Hoisting (C/MNM) (CI)	. 29
Anthracite Coal Mining (VC)	8		
Haul Road Inspection Handbook (IG)		INDUSTRIAL HYGIENE	
Haulage Fatalities – Surface Coal		Advisory Committee Recommendations	
(1996-1999) (OT)	27	to Eliminate Black Lung and Silicosis	40
Haulage Fatalities – Surface Metal and		(C) (OT)	. 19
Nonmetal (1996-1999) (OT)	27	Air We Breathe in Industrial Environments,	. 53
Haulage Fatalities- Underground		The (C/M NM) (VC)	. 55
Coal (1996-1999) (OT)		Earmuff Hearing Protectors Under	
Haulage Safety in Low-Coal Mines (VC)	54	Field Conditions - Coal and Metal/	
Safety on the Move: Truck Haulage Safety		Nonmetal (IR)	49
(C/MNM) (VC)	12	Bloodborne Pathogens: A Guide for	
Stay Alert and Stay Alive (Truck		the Mining Industry (IG)	21
Accident Awareness) (C) (VC)		Coal Dust (PI)	. 58
Stay Calm and Stay in the Cab! (VC)	14	Coal Dust: Hazards and Controls (VC)	. 53
Surface Coal Truck Haulage Fatalities	4-	Comparison of Infrared Absorbances	
of 1993 (VC)	. 15	for Standard Samples Prepared From	
Surface Haulage Coal Mine Inspector	42	Sieved and Non-sieved Quartz	4.0
Training (CI)	42	Reference Materials (IR)	. 49

P	age		Page
Cyanide Mill Reagents (MNM) (OT) Effect of Threshold on Noise Dosimeter	58	Toolbox – Practical Ways to Reduce Exposure to Coal Dust in Longwall	4.4
Measurements and Interpretation of Their Results, The (IR)	50	Mining (OT) Toolbox – Practical Ways to Reduce	. 44
Evaluation of Muff Type Hearing Protectors as Used in the Mining		Exposure to Diesel Exhaust in Mining (OT)	. 44
Industry - Coal and Metal/Nonmetal (IR) Field Evaluations of Hearing Protection	50	What Does the Term Silicosis Mean to You? (C/MNM) (VC)	. 17
Devices at Surface Mining Environments - Coal and Metal/Nonmetal (IR)	50	Working Safely with Silica, A Guide to (OT)	. 45
Health Hazard Card Series	47	Inundations	
Heat Stress in Mining (MNM) (SM)	28	Inundation of Water and Ignition-	
Industrial Hygiene for Healthier Miners (C/MNM) (SM)	29	Eyewitness Account (C) (VC)	. 9
Industrial Hygiene for the Mining Industry (C/ MNM) (PI)	59	JOB SAFETY ANALYSIS	
Industrial Hygiene: Sampling for Silica and Noise (IG)	29	Job Safety Analysis (C/MNM) (CI) Job Safety Analysis (C/MNM) (SM)	
Inspection Information Related to Silica Exposures of Surface Coal Miners (VC)	8	Job Safety Analysis Process: A Practical Approach, The (C/ MNM) (IG)	. 30
Magnitude of the Noise-Induced Hearing Loss Problem in the Mining Industries,		Job Safety Analysis Process: A Practical Approach (C/MNM) (VC)	. 9
The (IR)	51	Job Safety Analysis: Roof Bolter	
Miners' Health Pack, The (IG)	32	Operations (C) (VC)	. 9
Noise Exposure in U.S. Coal Mines (IR)	52		
Plain Talk About a Serious Problem –		KILN SAFETY	
Silicosis (C/MNM) (VC)	10	Safety Procedures in Kiln Rebricking	
Radiation Hazard in Mining, The (SM)	59	(MNM) (VC)	. 13
Respiratory Protection Programs (C/MNM) (VC)	11	Laws and Regulations	
Sampling for Silica and Noise – A		Code of Federal Regulations, Title 30,	
Handbook for Metal/Nonmetal		via Computer Linkup (OT)	22
Miners and Mine Operators (IG)	41	Diesel Regulations - Heavy Duty	22
Silicosis: A Preventable Disease (MNM) (VC)	13	Vehicles (VC)	4
Stop Silicosis (VC)	14	Diesel Regulations – Light Duty Vehicles (VC)	4
Toolbox – Practical Ways to Control Exposure to Mercury in Gold Mines (OT)	43	Miners' Rights and Responsibilities Under the Federal Mine Safety and Health	
Toolbox – Practical Ways to Reduce	70	Act of 1977, Guide to (C/MNM) (OT)	
Exposure to Coal Dust in Continuous		Part 50 – Coal and Metal/Nonmetal (CI)	
Mining (OT)	44	Program Policy Manual (OT)	39
		Safety Standards for Roof/Face/Rib Support (C) (VC)	. 13
		Title 30, CFR Part 50 (C/MNM) (VC)	

P	age		Page
LIGHTING Illumination in Underground Coal		Blasting Hazard Awareness: Surface Metal and Nonmetal (IG)	. 20
Mines (VC)	55 31	Blasting Hazard Awareness: Underground Metal and Nonmetal (IG)	. 21
Machinery		Breathe and Live: Ventilation in Metal and Nonmetal Mines (VC)	
Air Brake System Safety (C/MNM) (VC) Automatic Emergency Parking Brakes	2	Introduction to Metal/Nonmetal Mining:  A Programmed Text (PI)	
(VC)Buckle Up On-The-Job (C/MNM) (VC)	2 3	Milling and Crushing (MNM) (PI)  On-The-Job Training Modules –	
Cabs and Canopies for Your Safety (C)(VC)	53	Cement (IG)	
Front-End Loader Hazard Awareness Program (C/MNM) (IG)	27 6	and Nonmetal Dredges (IG) On-The-Job Training Modules – Metal/	
Mobile Equipment Safety (C/MNM) (VC) Rubber-Tired Front-End Loader and	9	Nonmetal Inspectors (IG)  On-The-Job Training Modules – Sand, Gravel and Crushed Stone (IG)	
Forklift Truck Accident Prevention (C/MNM) (IG)	40	On-The-Job Training Modules – Surface Metal and Nonmetal (IG)	
Seat Belt Success Story - Part I - By Terry Sanders (C/MNM) (VC)	13	Open-Pit Mining Hazards (MNM) (VC) Orientation and Indoctrination of Safe	
Seat Belt Success Story - Part II - (The Roger Newman Story) (C/MNM) (VC)	13	Workmen (VC)	
Stay Out of the Danger Zone (C) (VC) Underground Haulage, Transportation and Machinery (C) (CI)	14 45	Pre-Heater Safety (MNM) (VC)	
Management	.0	Radiation Hazard in Mining, The (SM) Safety and Health Audit for	
Foremanship Training Series (C) (VC) Industry Supervisory Training - Metal/	7	Aggregate Operators (MNM) (IG) Safety and Health Audit for Aggregate Operators - Long	. 40
Nonmetal (IG)	29	Version (MNM) (IG)	. 40
(C) (VC)	55	(MNM) (VC)  The Time Was Right! Mary Lou George	
Control (C) (VC)	57 42	(C/MNM) (VC) Underground Haulage Hazards	
Supervisory Training Series (MNM) (VC)	57	(MNM) (VC)	
METAL/NONMETAL MINING Ball Mill Safety (MNM) (VC)	2	(MNM) (VC)	. 17
Best Practices Cards	46	MILLING AND CRUSHING Milling and Crushing (MNM) (PI)	. 59

	Page		Page
MINE EMERGENCIES AND RESCUE Advanced Mine Emergency Operations (C/MNM) (CI)	. 19	Evaluation of Muff Type Hearing Protectors as Used in the Mining Industry – Coal and Metal/Nonmetal (IR) Field Evaluation of Hearing Protection	. 50
Using the (IG)	23	Devices at Surface Mining Environments – Coal and Metal/Nonmetal (IR)	. 50
Self-Rescuer (IG)	23	Guide to Conducting Noise Sampling, A (IG)	. 27
(Who Needs It?) (VC) Locating and Rescue of Trapped Miners	5	Magnitude of the Noise-Induced Hearing Loss Problem in the Mining Industries, The (IR)	. 51
(C/MNM) (VC)	9 9	Noise Exposure in U.S. Coal Mines (IR) Operation of the Quest Micro-15 Noise	. 52
(C/MNM) (CI)		Dosimeter (C/MNM) (VC)	56
Mine Rescue Training Modules (C/MNM) (IG)	32	On-The-Job Training Modules On-The-Job Training Modules - Anthracite and Bituminous Coal	
Self-Rescuer (IG)	32 . 32	Preparation Plants and Shops (IG) On-The-Job Training Modules - Cement (IG)	
Permissible Draeger 810 Respirator for Self-Rescue (IG)		On-The-Job Training Modules - Metal and Nonmetal Dredges (IG)	
Recovery of Farmington #9 - An Interview With Danny Kuhn (VC)		On-The-Job Training Modules - Metal/Nonmetal Inspectors (IG) On-The-Job Training Modules - Sand,	. 33
Self-Contained Self-Rescuers (SCSRs), An Efficient Method for Donning (C) (VC)	. 13	Gravel, and Crushed Stone (IG) On-The-Job Training - Structuring Effective Programs (C/MNM) (IG)	
Noise Analysis of Noise Reduction with		On-The-Job Training Modules - Surface Anthracite (IG)	. 34
Earmuff Hearing Protectors Under Field Conditions - Coal and Metal/ Nonmetal (IR)	49	On-The-Job Training Modules - Surface Coal (IG)	35
Comparison of Noise Exposure Measurements Conducted With Sound	49	Surface Coal Mine Inspection (IG) On-The-Job Training Modules - Surface Metal and Nonmetal (IG)	
Level Meters and Noise Dosimeters Under Field Conditions C/MNM) (IR) Compliance Guide to MSHA's	. 49	On-The-Job Training Modules - Underground Anthracite (IG)	
Occupational Noise (IG)	22	On-The-Job Training Modules - Underground Coal (IG)	. 36
Measurements and Interpretation of Their Results, The (IR)	. 50	On-The-Job Training Modules – Under- ground Coal Mine Inspections (IG)	. 36

	Page		Page
Part 45 Part 45 – Coal and Metal/Nonmetal		Permissible Draeger 810 Respirator for Self-Rescue (IG)	. 39
Entry Level Training (CI)	37	Personal Protective Equipment (C/MNM) (SM)	39
PART 46 How to Tailor Off-The-Shelf Training		Respiratory Protection Programs (C/MNM) (VC)	11
Materials (IG)	59 . 29	PREPARATION PLANTS	00
Part 46 Instructors Guide with Lesson Plans, 30 CFR (IG)Part 46 Starter Kit with Sample	. 37	Coal Preparation (IG)	. 22
Training Forms, 30 CFR (IG)		Preparation Plants and Shops (IG) Surface Installations (C) (CI)	
		Quarries	
Part 48 How to Tailor Off-The-Shelf Training		Quarry Safety (MNM) (VC)	. 10
Materials (IG)		REFUSE PILES AND IMPOUNDMENTS  Dump Point Safety: Stockpiles and Wastepiles (MNM) (VC)	. 4
Part 48 Training - Metal/Nonmetal (IG)	. 38	Presentations From the 1992 Coal Mining Impoundment Informational Meeting (IR)	. 52
Part 50 Part 50 - Coal and Metal/Nonmetal (CI) Title 30 CFR Part 50 (CMNM) (VC)		Slope Stability of Waste Dams and Embankments (C/MNM) (VC)	
PERSONAL PROTECTIVE EQUIPMENT		ROOF AND RIB CONTROL	
Analysis of Noise Reduction with Hearing Protectors Under Field Conditions - Coal and Metal/ Nonmetal (IR)	49	Cabs and Canopies for Your Safety (C) (VC)	. 58 . 23
Draeger BG 174A Breathing Apparatus, Using the (IG)	23	Geology of Roof Falls (C) (VC)	
Evaluation of Muff Type Hearing Protectors as Used in the Mining Industry - Coal and Metal/Nonmetal (IR)	. 50	Preventive Roof/Rib Outreach Program (PROP) (C) (VC)	. 10
Field Evaluation of Hearing Protection Devices at Surface Mining Environments -		(VC)	
Coal and Metal/Nonmetal (IR)		Rock Falls - Preventing Rock Fall Injuries in Underground Mines	4.4
Self-Rescuer (IG)	32 . 32	(MNM) (VC)	

F	Page		Page
Roof and Rib Control (C) (PI)	60	Plain Talk About a Serious Problem	40
Roof and Rib Fall Accident Statistics, An	4.4	Silicosis (C/MNM) (VC)  Silicosis: A Preventable Disease	. 10
Overview of (C) (VC)	11 11	(MNM) (VC)	. 13
Roof Bolting in Coal Mines (VC)	56	Stop Silicosis (VC)	
Roof Evaluation and Decisions in Roof		What Does the Term Silicosis Mean	
Control (C) (VC)	11	to You? (C/MNM) (VC)	. 17
Roof Fall Entrapment:  Eye Witness Accounts (C) (VC)	12	Working Safely with Silica, A Guide to (OT)	. 45
Roof Fall Entrapment:	12	(0.)	
Survivors' Accounts (C) (VC)	12	STATISTICS	
Safety Standards for Roof/Face/Rib		Roof and Rib Fall Accident Statistics. An	
Support (C) (VC)	13	Overview of (C) (VC)	. 11
Scaling (VC)	13	Statistical Profile for Underground Coal	
Supervisor's Responsibilities in Roof Control (C) (VC)	57	Mines: Differences Associated with Mine Size (VC)	1/
Trouble-Shooting Guide for Roof Support	01	Willie 3126 (VO)	. 14
Systems, A (IR)	52	STOCKPILES	
Why Roof Control Plans? (C) (VC)	57	Coal Dump Point Safety (VC)	. 3
		Dump Point Safety: Stockpiles and	
SALT MINING		Wastepiles (MNM) (VC)	. 4
Part 48 Training - Metal and Nonmetal (IG)	38	Hazards and Safety Practices on Surge Piles (MNM) (VC)	8
Underground Salt Mine Safety Series (MNM) (VC)	17	Hazards of Coal Stockpiling Operations (VC).	
(1011-4101) (100)	17	Hidden Danger: Safety Improvements	. 0
SEAT BELTS		for Surge Piles (C) (VC)	8
Buckle Up On-the-Job (VC)	3	Material Instability Hazards in Mine-	
Seat Belt Success Story - Part I - By		Processing Operations (IR)	
Terry Sanders (C/MNM) (VC)	13	Stockpiling Safety (SM)	. 41
Seat Belt Success Story - Part II - (The	40	Bins, Hoppers and Stockpiles	
Roger Newman Story) (C/MNM) (VC)	13	(C/MNM) (IG)	43
Silica/Silicosis		Think "Quicksand": Safety Around Bins	
Advisory Committee Recommendations		and Hoppers (C/MMN) (VC)	. 15
to Eliminate Black Lung and Silicosis		Curation Action	
(C) (OT)		SUBSTANCE ABUSE Aleghel and Drug Abuse Manual	
Disease Silicosis, The (CMNM) (VC)	4	Alcohol and Drug Abuse Manual, Mining Industry (C/MNM) (OT)	. 19
Dust Control - It's Everyone's Business (VC)	4	Coping with Substance Abuse in	
Eliminating Silicosis (MNM) (VC)	5	Mining (SM)	. 22
Health Hazard Card Series	47	Part 48 Alcohol and Other Drug Abuse	
Inspection Information Related to Silica		Recognition in the Mining Industry (C/MNM) (IG)	37
Exposures of Surface Coal Miners (VC)	8	( , ( · <del>-</del> ) · · · · · · · · · · · · · · · · · ·	٠,

ı	Page		Page
Substance Abuse - Discussion Guide for Inspectors (C/MNM) (OT)	41	TRUCK SAFETY – SEE HAULAGE	
Substance Abuse - Discussion Guide for Managers (C/MNM) (OT)	41 60	VENTILATION Bleeder and Gob Ventilation Systems (C)(CI)	. 21
(C/MNM) (VC)	15	Breathe and Live: Ventilation in Metal and Nonmetal Mines (VC)	. 53
Substance Abuse Recognition for Supervisors (C/MNM) (CI)	41	Extensible Line Curtain (C) (VC)	
Survey of Substance Abuse Programs in the Mining Industry, A (C/MNM) (OT)	43	Mine Emergency Ventilation (C/MNM) (CI)	. 31
What Am I Worth? (C/MNM) (VC)	17	Mine Ventilation (C/MNM) (SM)	. 32
Surface Mining		VIOLATIONS	
Ground Control in Surface Mining (C) (VC)	7	Repeat Violation Reduction Program (C/MNM) (VC)	
Hazard Recognition and Avoidance in Surface Coal Mining (VC)	54	Repeat violation Reduction Program (19)	. 40
Inspection Information Related to Silica Exposures of Surface Coal Miners (VC)	8	WELDING Compressed Gases: The Correct Way	
On-The-Job Training Modules – Surface Anthracite (C) (IG)	34	to Use Acetylene and Oxygen for Cutting (C/MNM) (VC)	
On-The-Job Training Modules – Surface Coal (IG)	35	Health Hazard Card Series	. 47
On-The-Job Training Modules – Surface Metal and Nonmetal (IG)	35	WINTER ALERT	
Open-Pit Mining Hazards (MNM) (VC)	55	Winter Alert (C/MNM) (SM)	
Part 48 Training - Coal (IG)	37	Winter Alert: The Sonman Mine	. 17
Part 48 Training - Metal/Nonmetal (IG) Surface Coal Truck Haulage Fatalities of 1993 (VC)	38 15	Disaster (C) (VC)	17
Surface Haulage Safety (C/MNM) (SM)	42		
Surface Installations (C) (CI)	43		
Surface Mining (PI)	60		
Surface Powered Haulage Safety (C/MNM) (IG)	43		

Р	age		Page
Abandoned Mines Booklet (OT)	18	Blasters Training Program for	
Accident Analysis and Problem Identification for Coal Mines (IG)	18	Independent Contractors (C/MNM) (IG) Blasting From the Solid, Underground	. 20
Accident Analysis and Problem Identification for Metal/Nonmetal		Coal Mine (IG)	. 58
Mines (IG)	18	and Underground Coal Mines (IG)	. 20
Accident Investigation (C/MNM) (SM)	18 18	Blasting Hazard Awareness: Surface Metal and Nonmetal (IG)	. 20
Accident Reduction Program/Post	10	Blasting Hazard Awareness:	. 20
Accident Reduction Program/Post Accident Remedies, Technical		Underground Metal and Nonmetal (IG)	. 21
Support (VC)	2	Blasting Requirements - Surface Coal (CI)	. 21
Advanced Mine Emergency Operations (C/MNM) (CI)	19	Blasting Requirements - Underground Coal (CI)	. 21
Advisory Committee Recommendations to Eliminate Black Lung and		Bleeder and Gob Ventilation Systems (C) (CI)	. 21
Silicosis (C) (OT)	19	Blind Spots Can Kill! (CMNM) (VC)	
Air Brake System Safety (VC)	2	Bloodborne Pathogens: A Guide for the Mining Industry (IG)	. 21
Environments, The (C/MNM) (VC)	53	Breathe and Live: Ventilation in	
Alcohol and Drug Abuse Manual, Mining Industry (C/MNM) (OT)	19	Metal and Nonmetal Mines (VC) Buckle Up On-The-Job (VC)	
Analysis of Noise Reduction With	. •	Cabs and Canopies for Your Safety (C) (VC) .	
Earmuff Hearing Protectors Under		Calibration and Maintenance Procedures	
Field Conditions - Coal and Metal/ Nonmetal (IR)	49	for Coal Mine Respirable Dust	40
Analysis of Underground Powered	70	Samplers (IR)	. 49
Haulage Lost Time Accidents,		Chemistry, Analysis and Interpretation of Mine Atmospheres (IG)	. 58
January 1990 - December 1999		Coal Country (OT)	
(C/MNM) (OT)	19	Coal Dump Point Safety (VC)	
Annual Refresher Training Games (C) (IG)	19	Coal Dust (PI)	. 58
Anthracite Mining Workbook (PI)	20	Coal Dust: Hazards and Controls (VC)	
Anthracite: Pre-Shift Examinations	20	Coal Mine Maps (SM)	. 22
of Underground Mines (VC)	2	Coal Mine Roof and Rib Control (SM)	. 58
Ask the Right Questions (VC)	2	Coal Mining (SM)	
Automatic Emergency Parking Brakes		Coal Preparation (IG)	. 22
(VC)	2	Code of Federal Regulations, Title 30,	00
Back Injuries in the Mining Industry (SM)	20	via Computer Linkup (OT)	. 22
Ball Mill Safety (VC)	2	Combustible Materials and Rock Dusting (C) (CI)	. 22
Barriers to the Prevention of Ground	2	Comparison of Infrared Absorbances	. 22
Fall Accidents (VC)	3 46	for Standard Samples Prepared From	
	40	Sieved and Nonsieved Quartz Reference	
Bins and Hoppers Safety Awareness	20	Materials (IR)	. 49

Р	age		Page
Comparison of Noise Exposure Measurements Conducted With Sound Level Meters and Noise Dosimeters Under Field Conditions (IR)	49	Electrical Hazards (C) (PI)	. 23
Compliance Guide to MSHA's Occupational Noise (IG)	22	Electrical Hazards in Underground Coal Mining (VC)	
Compressed Gases: The Correct Way to Use Acetylene and Oxygen for Cutting (VC)	3	Electrical Lock-Out Procedures (VC) Eliminating Silicosis (MNM) (VC)	. 54
Confined Spaces in Mining (VC) Control of Back Injuries in Mining (VC)	3 3 3	Emergency Response Planning (Who Needs It?) (VC)	
Conveyor Safety (VC)	22	Equipment Guarding, MSHA's Guide to (C/MNM) (OT)	
Customer and Delivery Truck Drivers Hazard Training (MNM) (VC)	4	Escape From Mine Fires (VC)  Evaluation of Gases From Mine Explosions by Elemental Balancing, The (IR)	
Cyanide Mill Reagents (MNM) (OT) Dawn of a New Day: Continuous Haulage Safety (C) (VC)	58	Evaluation of Muff Type Hearing Protectors as Used in the Mining Industry - Coal and	. 00
Degraded Image Hazard Recognition (C) (IG)	4 23	Metal/Nonmetal (IR)	. 50
Vehicles (VC)	4	(VC)	
Diesel Regulations – Light Duty Vehicles (VC)	4	Extensible Line Curtain (C) (VC)	. 54
Disease Silicosis, The (C/MNM) (VC)	4	Fall Protection: Your Lifeline to Safety (C/MNM) (VC)	5
<b>Don't Be the Fall Guy! (OT)</b> Draeger BG 174A Breathing Apparatus,	23	Fatal Accidents at Small Crushed Stone and Sand and Gravel Mining Operations	s,
Using the (IG)	<ul><li>23</li><li>23</li></ul>	1994-1999 (MNM) (OT)	. 24
Self-Rescuer (IG)	23 4	Maintenance and Repair at Coal Mines, 1996-1999 (OT)	. 24
Dust Control - It's Everyone's Business (VC)	4	Maintenance and Repair at Metal/ Nonmetal Mines, 1996-1999 (OT)	. 24
Dust Sampling and Laboratory Testing Procedures After Underground Coal Mine Explosions (IR)	49	Fatal Accidents Involving Contractors at Coal and Metal/Nonmetal Mines, 1996-1999 (OT)	. 25
DUST – The Invisible Enemy (C/MNM)	5	Fatal Accidents Involving Conveyors at	
Dust - What You Can't See CAN Hurt You! (C) (OT)	23	Coal and Metal/Nonmetal Mines, 1990-1999 (OT)	. 25
Effect of Threshold on Noise Dosimeter Measurements and Interpretation of Their Results, The (IR)	50 5	Fatal Accidents Involving Drowning at Coal and Metal/Nonmetal Mines, 1996-1999 (OT)	. 25

P	age		Page
Fatal Accidents Involving Independent Contractors at Coal Mines,	25	Harvey Roles II (C) (VC)	
1996-1999 (OT) Fatal Accidents Involving Independent Contractors at Metal and Nonmetal		Haulage and Hoisting in Underground Anthracite Coal Mining (VC)  Haulage Fatalities – Surface Coal	. 8
Mines, 1996-1999 (OT)Fatal Accidents Involving Roof Falls in	25	(1996-1999) (OT)	27
Coal Mining, 1996-1998 (OT)	25 5	Nonmetal (1996-1999) (OT)	. 27
Fatal Illustration Program (OT) Field Evaluations of Hearing	26	(1996-1999) (OT)	. 54
Protection Devices at Surface Mining Environments - Coal and		Hazard Recognition and Avoidance in Surface Coal Mining (VC)	
Metal/Nonmetal (IR)	50 6	Hazard Recognition and Avoidance in Underground Coal Mines (VC)	
Fire Fighting in the Mineral Industry (MNM) (VC)	54	Hazard Recognition Training Program for Construction, Maintenance, and	00
Fire Protection (C/MNM) (CI)	26 26	Repair Activities (IG)	28
Fire Suppression - How It Works (C)(VC)	6	for Underground Limestone (IG)	. 28
First Aid (C/MNM) (SM)	26 26	Piles (MNM) (VC)	8
First Aid Instructor's Guide (C/MNM) (IG) First Aid Video (VC)	26 6	(VC)	
Foremanship Training Series (VC)	O	Health Hazard Card Series Heat Stress in Mining (MNM) (SM)	
Investigation - A Tool for Accident Prevention	6	Hidden Danger: Safety Improvements for Surge Piles (VC)	
Sell SafetySet the Pace	6 6	HISTORICAL MATERIALSHistorical Mining Disasters (OT)	. 28
Teach Safety  Front-End Loader Hazard Awareness	6	Hoisting (C/MNM) (CI)	. 29
Program (C/MNM) (IG)	7	Materials (IG)	59
Geology of Roof Falls (VC)	7 7	Mines (VC)	
Ground Control in Surface Mining (C) (VC) Guide to Conducting Noise Sampling,	7	Industrial Hygiene for Healthier Miners (CMNM) (SM)	29
A (IG)	27	Industrial Hygiene for the Mining Industry (C/ MNM) (PI)	59
(Miner Mike Saves the Day) (MNM) (VC)	7	Industrial Hygiene: Sampling for Silica and Noise (IG)	29
Harvey Roles I (MNM) (VC)	7	( - /	-

F	Page	I	Page
Industry Supervisory Training - Metal/Nonmetal (IG)	29 49 50	Magnitude of the Noise-Induced Hearing Loss Problem in the Mining Industries, The (IR)	51 55 51 9
Mining (Except Stone and Coal), 1989-1998 (IR)		Milling and Crushing (MNM) (PI)	31
Injury Experience in Stone Mining, 1989-1998 (IR)	51	Mine Gases (PI)	59 31
Exposures of Surface Coal Miners (VC) Installation of MSHA-Accepted Ground Wire Monitors, Guidelines for the (IR)	8 51	Mine Maps – Underground (C) (CI) Mine Rescue Training Modules (C/MNM) (IG)	
Instructor Training Workshop Guide (IG) Introduction to Metal/Nonmetal Mining:  A Programmed Text (PI)	29 30	Mine Ventilation (C/MNM) (SM)	32
Introduction to Operator Air Sampling Programs (IR)	51	Miners' Rights and Responsibilities Under the Federal Mine Safety and Health Act of 1977, Guide to	
Introduction to Underground Coal Mining (PI)	59	(C/MNM) (OT)	32 9
Eyewitness Account (C) (VC) Job Safety Analysis (C/MNM) (CI) Job Safety Analysis (C/MNM) (SM)	9 30 30	Self-Rescuer (IG)	
Job Safety Analysis Process: A Practical Approach, The (C/ MNM) (IG) Job Safety Analysis Process: A Practical	30	Oh! My Aching Back (C/MNM) (VC) On-The-Job Training Modules –	52 55
Approach (C/MNM) (VC)	9	Anthracite and Bituminous Coal Preparation Plants and Shops (IG) On-The-Job Training Modules -	33
Operations (C) (VC)	9	Cement (IG)	. 33
Safety Lamps (IG/VC)Laboratory Safety (SM)	59 59	Metal and Nonmetal Dredges (IG) On-The-Job Training Modules -	33
Locating and Rescue of Trapped Miners (C/MNM) (VC)	9	Metal/Nonmetal Inspectors (IG) On-The-Job Training Modules –	
Lock Out and Tag for Safety (VC) Magic of Fire, The (C/MNM) (VC)	9 55	Sand, Gravel, and Crushed Stone (IG) On-The-Job Training - Structuring Effective Programs (C/MNM) (IG)	34 34

Р	age		Page
On-The-Job Training Modules -		Part 50 - Coal and Metal/Nonmetal (CI)	. 39
Surface Anthracite (IG)	34	Pathway to Safety (VC)	10
On-The-Job Training Modules – Surface Coal (IG)	35	Permissibility - Electric Face Equipment (C/MNM) (SM)	
On-The-Job Training Modules – Surface Coal Mine Inspection (IG)	35	Permissible Draeger 810 Respirator for Self-Rescue (IG)	. 39
On-The-Job Training Modules – Surface Metal and Nonmetal (IG)	35	Personal Protective Equipment (C/MNM) (SM)	39
On-The-Job Training Modules – Underground Anthracite (IG)	36	Plain Talk About a Serious Problem Silicosis (C/MNM) (VC)	. 10
On-The-Job Training Modules – Underground Coal (IG)	36	POCKET CARDS	. 46
On-The-Job Training Modules – Under-		Pre-Heater Safety (C/MNM) (VC)	. 10
ground Coal Mine Inspection (IG) Open-Pit Mining Hazards (MNM) (VC)	36 55	Presentations From the 1992 Coal Mining Impoundment Informational Meeting	. 52
Operation of the Quest Micro-15	00	(IR)	. 52
Noise Dosimeter (C/MNM) (VC)	56	(PROP) (C) (VC)	. 10
ORDER FORM		Principles of Mine Rescue (C/MNM) (IG)	
Orientation and Indoctrination of Safe		Program Policy Manual (OT)	
Workmen (MNM) (VC)	56	Protective Canopy (A Survivor's Story)	
OTHER SOURCES OF TRAINING		(VC)	. 10
MATERIALS	iv	Quarry Safety (MNM) (VC)	
Part 45 – Coal and Metal/Nonmetal	o=	Radiation Hazard in Mining, The (SM)	
Entry Level Training (CI)	37	REAP - Roof and Rib Fatalities -	
Part 46 Instructors Guide with	27	Coal (VC)	56
Lesson Plans, 30 CFR (IG)	37	Reason for Change (Canopy Save) (VC)	. 10
Part 46 Starter Kit with Sample	27	Recovery of Farmington #9 - An	
Training Forms, 30 CFR (IG) Part 46 Training Packet – Introduction	37	Interview With Danny Kuhn (VC)	. 11
to the Work Environment (IG)	37	Repeat Violation Reduction Program	
Part 48 Alcohol and Other Drug Abuse	01	(C/MNM) (VC)	
Recognition in the Mining Industry		Repeat Violation Reduction Program (IG)	
(C/MNM) (IG)	37	Respiratory Protection Programs (VC)	. 11
Part 48 Training (IG)		Rock Falls - Preventing Rock Fall	
Coal		Injuries in Underground Mines	. 11
Surface	37	(MNM) (VC)	
Underground	38		
Part 48 Training (IG)		Roof and Rib Control (PI)	. 60
Metal and Nonmetal	00	Roof and Rib Fall Accident Statistics,	11
Deep Mines	38	An Overview of (C) (VC)	
Sand and Gravel Mines	38	Roof Bolting in Coal Mines (VC)	
Surface Mines	38	Roof Evaluation and Decisions in	. 50
Underground Salt Mines	38	Roof Control (VC)	11

P	age		Page
Roof Fall Entrapment:		Slope Stability of Waste Dams and	
Eye Witness Accounts (C) (VC)	12	Embankments (C/MNM) (VC)	
Roof Fall Entrapment:	12	Small Mines Training (C) (IG)	. 41
Survivors'Accounts (C) (VC)	12	Statistical Profile of Underground Coal Mines: Differences Associated	
Forklift Truck Accident Prevention		with Mine Size (VC)	. 14
(C/MNM) (IG)	40	Stay Alert and Stay Alive (Truck	
Safety and Health Audit for Aggregate		Accident Awareness) (C) (VC)	. 14
Operators (MNM) (IG)	40	Stay Calm and Stay in the Cab! (VC)	. 14
Safety and Health Audit for Aggregate	4.0	Stay Out of the Danger Zone (C) (VC)	. 14
Operators - Long Version (MNM) (IG)	40	Stockpiling Safety (SM)	. 41
Safety Around Power Lines (VC)	12	Stop Silicosis (VC)	. 14
Safety Basketball (MNM) (IG)	40	Storage, Transportation and Handling	
Safety Issues in Deep Cut Mining	40	of Compressed Gases (C/MNM) (VC)	. 14
(Small Mines Tech Transfer) (VC) Safety Observation (C/MNM) (IG)	12 40	Substance Abuse - Discussion Guide for	
	40	Inspectors (C/MNM) (OT)	41
Safety on or Near the Water (MNM) (VC)	12	Substance Abuse - Discussion Guide for Managers (C/MNM) (OT)	41
Safety on the Move: Truck Haulage		Substance Abuse in Mining (CMNM)(OT)	
Safety (C/MNM) (VC)	12	Substance Abuse: Is It Our Problem?	. 00
Safety Practices in Low-Coal Mining (VC)	56	(C/MNM) (VC)	15
Safety Procedures in Kiln Rebricking		Substance Abuse Recognition for	
(MNM) (VC)	13	Supervisors (C/MNM) (CI)	41
Safety Standards for Roof/Face/Rib	4.0	Supervisor's Responsibilities in Roof	
Support (C) (VC)	13	Control (C) (VC)	
Sampling for Silica and Noise – A		Supervisory Training Program (C) (IG)	
Handbook for Metal/Nonmetal Miners and Mine Operators (IG)	41	Supervisory Training Series (MNM) (VC) Man and His Habits	. 57
Scaling (VC)	13		
Scientific Look at Back Belts (VC)	13	Safety Consciousness	57
Seat Belt Success Story - Part I -	. •	Surface Contractors Training Program (C/MNM) (OT)	. 42
By Terry Sanders (C/MNM) (VC)	13	Surface Coal Truck Haulage Fatalities	. 42
Seat Belt Success Story - Part II - (The		of 1993 (VC)	. 15
Roger Newman Story) (C/MNM) (VC)	13	Surface Haulage Coal Mine Inspector	
Self-Contained Self-Rescuers (SCSR), An		Training (CI)	. 42
Efficient Method for Donning (VC)	13	Surface Haulage Metal/Nonmetal Mine	
CSE	13	Inspector Training (CI)	. 42
Draeger	13	Surface Haulage Safety (C/MNM) (SM)	
Ocenco	13	Surface Installations (C) (CI)	
Silicosis: A Preventable Disease	40	Surface Mining (PI)	. 60
(MNM) (VC)	13	Surface Powered Haulage Safety	
Slips, Trips and Falls (VC)	14	(C/MNM) (IG)	43

F	age		Page
Survey of Substance Abuse Programs in the Mining Industry, A (C/MNM) (OT)	43	Truck Haulage Safety Series (C/MNM) (VC) Brakes, Grades, and Runaways –	
The Time Was Right! Mary Lou George		Highway Trucks	. 15
(C/MNM) (VC)	15	Brakes, Grades, and Runaways – Off-Road Trucks	. 16
Think "Quicksand": Accidents Around Bins, Hoppers and Stockpiles (IG)	43	Highway Haulage Truck Inspection	. 10
Think "Quicksand": Safety Around Bins	10	Conducted by MSHAInspectors	. 16
and Hoppers (C/MNM) (VC)	15	Inspection of Off-Road Haulage Trucks	
Timbering in Underground Anthracite		by an MSHA Inspector	. 16
Mines (VC)	15	Pre-Operation Inspection of Highway	4.0
Tire and Rim Safety Awareness	43	Haulage Trucks by the Driver Pre-Operation Inspection of Off-Road	. 16
Program (C/MNM) (IG)	43	Haulage Trucks by the Driver	. 16
(C/MNM) (VC)	15	Visibility and Communications:	
Toolbox – Practical Ways to Control		Off-Road and Highway Trucks	. 16
<b>Exposure to Mercury in Gold Mines</b>		Underground Coal Haulage and	
_ (OT)	43	Transportation (PI)	
Toolbox – Practical Ways to Reduce Exposure to Coal Dust in Continuous		Underground Coal Mine Blasting (VC) Underground Haulage Hazards (VC)	
Mining (OT)	44		. 10
Toolbox – Practical Ways to Reduce	• •	Underground Haulage, Transportation and Machinery (C) (CI)	. 45
Exposure to Coal Dust in Longwall		Underground Salt Mine Safety	
Mining (OT)	44	Series (MNM) (VC)	. 17
Toolbox – Practical Ways to Reduce Exposure to Diesel Exhaust in		VIDEOTAPES (VC)	
Mining (OT)	44	What Am I Worth? (C/MNM) (VC)	. 17
Traffic Control at Surface Mines and		What Does the Term Silicosis Mean	47
Installations, Guidelines for (C/MNM)		to You? (C/MNM) (VC)	. 17
(OT)	44	Someone (C/MNM) (VC)	. 17
TRAINING MATERIALS	18	Why Roof Control Plans (C) (VC)	
Transportation and Communication in	57	Winter Alert (C/MNM) (SM)	
Underground Coal Mines (VC)  TRAP – Take Responsibility for	37	Winter Alert (C) (VC)	. 17
Accident Prevention (IG)	44	Winter Alert: The Sonman Mine	
Trouble-Shooting Guide for Roof		Disaster (C) (VC)	. 17
Support Systems, A (IR)	52	Working Safely with Silica, A Guide	45

## Order Form

#### Please allow 4-6 weeks for delivery.

DATE:	PURCHASE ORDER NO:		
NAME:	TITLE:		
COMPANY:			
ADDRESS:			
CITY: TELEPHONE (Including Area Code):	STATE:	ZIP CODE:	
STATE GRANTS PARTICIPANT:	YES	NO	

QUANTITY	CATALOG NUMBER	NAME OF ITEM	UNIT PRICE	TOTAL AMOUNT

#### **ORDERS FROM FOREIGN COUNTRIES**

Advance payment in U.S. currency is required for ALL orders from foreign countries.

Make checks payable to: MINE SAFETY AND HEALTH ADMINISTRATION

or

Submit a Purchase Order and you will be billed later.

(We are unable to accept credit cards.)

Mail completed form to: National Mine Health and Safety Academy

ATTENTION: Mary Lord

Department of Instructional Materials

1301 Airport Road

Beaver, West Virginia 25813-9426

You may telephone us at: (304) 256-3257 You may FAX us at: (304) 256-3368 You may e-mail us at: lord-mary@msha.gov

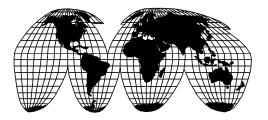
# Supplement to the Catalog of Training Products for the Mining Industry — 2001



U. S. De part ment of La bor Mine Safety and Health Administration Na tional Mine Health and Safety Acad emy

October 2001

Visit our website at http://www.msha.gov



# Supplement to the Catalog of Training Products for the Mining Industry — 2001



U. S. De part ment of La bor Elaine L. Chao Secretary

Mine Safety and Health Administration Dave D. Lauriski AssistantSecretary

October 2001

## TABLE OF CONTENTS

	Page
Information and Products	iii
Other Sources of Training Ma te rials	iv
Videotapes	1
Training Materials	3
InformationalReports	5
NIOSH Materials	7
In dex (By Title).	35
Or der Form	37

### Information and Products

#### INTRODUCTION

This publication is a supplement to the 2001 edition of the Catalog of Training Products for the Mining Industry.

The Academy also publishes a catalog, Courses for MSHA and the Mining Industry. You can obtain copies of this catalog from the address below.

#### HOW TO ORDER FROM THIS SUPPLEMENT

The items listed in this supplement can be ordered from:

National Mine Health and Safety Academy Attention: Mary Lord Department of Instructional Materials 1301 Airport Road Beaver, West Virginia 25813-9426

> Phone: 304-256-3257 Fax: 304-256-3368 E-mail: lord-mary@msha.gov

An order form is included in the back of the supplement for your convenience. **Please allow 4-6 weeks for delivery.** 

Advance payment in U.S. currency is required for all orders from foreign countries. All other orders may be paid by check or purchase order. **NOTE:** We are unable to accept credit cards.

We will gladly provide further information on any item listed in this supplement, address any comments you may have, or send you additional supplements or catalogs.

#### ADDITIONAL INFORMATION

You can also obtain sources of information on mine safety and health from the Academy's Technical Information Center and Library (TICL). The TICL is the largest library in the United States devoted to mine safety and health. It provides reference assistance so you can quickly locate and access books, hard copy documents, microfilm documents, journals, audiovisual materials, or electronically-stored materials. The TICL also offers timely research assistance to users in the form of research studies, technical reports, investigations, etc.; locates and makes available to users resources beyond the scope of the TICL's collection; develops and maintains a comprehensive collection of mine health and safety information; preserves and maintains a historical collection of mine safety and health documents for current users and for posterity; and trains users and potential users on the usefulness of the Library contents/services and how to obtain information quickly and easily.

### OTHER SOURCES OF TRAINING MATERIALS

In addition to the Academy, several other sources produce training materials. These include the National Institute for Occupational Safety and Health (former Bureau of Mines) and several states that participate in MSHA's State Grants Program. In this section we have given the names, addresses, and phone numbers (where available) of these organizations.

#### **MSHA STATE GRANTS PARTICIPANTS**

#### STATE OF COLORADO

#### Mr. Bill York-Feirn

Supervisor of Mine Safety and Training Colorado Division of Minerals and Geology 1313 Sherman St., Rm. 215

Denver, CO 80203 Telephone: 303-866-3650 Fax: 303-832-8106

E-mail: bill.york-feirn@state.co.us

#### STATE OF CONNECTICUT

#### Dr. Charles D. Reese

Associate Professor University of Connecticut Labor Education Center One Bishop Circle, LEC U13 Storrs, CT 06269-4056 Telephone: 860-486-3417

Fax: 860-486-5221 E-mail: cdreese@uconnvm.uconn.edu

#### STATE OF FLORIDA

#### Mr. Ben Hart

Mine Safety Coordinator
Department of Environmental Protection
Bureau of Mine Reclamation
2051 East Dirac Drive
Tallahassee, FL 32310-3760
Telephone: 850-413-8192, ext. 27

Fax: 850-488-1254 E-mail: Ben.Hart@dep.state.fl.us

#### STATE OF GEORGIA

#### Mr. Glen Rasco

Program Coordinator
Mine Safety and Health Training Program
Appalachian Technical Institute
100 Pickens Tech Drive
Jasper, GA 30143
Telephone: 706-253-4520

Fax: 706-253-4525 E-mail: grasco@apptec.org

#### STATE OF ILLINOIS Mr. Art Rice

Mine Safety Supervisor Office of Mines and Minerals 503 East Main Street Benton, Illinois 62812 Telephone: 618-439-9111 Fax: 618-438-8111

#### STATE OF NORTH CAROLINA

E-mail: dnrmm@midwest.net

#### Mr. James Turner

Bureau Chief
Mine and Quarry Bu reau
North Carolina De part ment of La bor
111 Hillsborough Street
Ra leigh, NC 27601-1092
Telephone: 919-807-2790
Fax: 919-807-2835

#### STATE OF TEXAS

#### Mr. Rob ert Novello

E-mail: jturner@mail.dol.state.nc.us

Director, Industrial Education Department
The University of Texas at Austin
P.O. Box 7518
Austin, TX 78713-7518
Telephone: 512-471-4633
Fax: 512-471-4695

## NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

E-mail: bnovello@mail.utexas.edu

#### Ms. Bobbie Calhoun

Pittsburgh Reseach Center
P.O. Box 18070
Cochrans Mill Road
Pittsburgh, PA 15236
Phone: 412-386-5901
Fax: 412-386-5902

E-mail: minetraining@cdc.gov

## **VIDEOTAPES**

This section lists training videotapes developed since the last issue of our training catalog. Videotapes offer trainers unique opportunities to reinforce key training objectives, expand and enhance training sessions, and add variety to training programs.

Videotapes are listed alphabetically by title. Where appropriate, coalrelated items are designated (C) and metal/nonmetal items are designated (MNM).

#### SPECIAL NOTICE!!

The following videotapes, published in the 2001 Catalog of Training Products, will no longer be available:

K VC 860 — Stay Alert and Stay Alive

K VC 888 — The Disease... Silicosis

K VC 889 — Inspection Information Related to Silica Exposures of Surface Coal Miners

K VC 932 — Eliminating Silicosis

K VC 947 — Preventive Roof/Rib Outreach Program (PROP)

All videotapes are available in VHS format and cost \$8.00 per tape.



Selected videotapes are available in SPANISH from:

The University of Texas at Austin Industrial Education Department P. O. Box 7518
Austin, TX 78713-7518
Telephone: 512-471-4633

1

## **VIDEOTAPES**

#### Coal Dump Point Safety (Spanish Version)

Using trucks to dis pose of waste ma te rial and build coal stock piles are im por tant parts of the min ing op er a tion and trans por ta tion of coal, but ac ci dents can occur during these ac tivities if ade quate safety pre cau tions are not taken. The video will il lustrate the most com mon haz ards at dump points and piles and will dem on strate rec om mended safety practices.

MSHA 1998 15 min

**Cat No:** VC 965-S **Price:** \$8.00

#### It Can Happen to You (C)

Even with all re quired roof pro tec tion in place, roof falls still can hap pen. This video stresses the im portance of al ways be ing aware of your work en vi ronment and the ever chang ing con di tions. You will hear from two survivors of roof fall ac ci dents, one a roof bolter, and the other a con tin u ous miner op er a tor.

MSHA 2001 14 min

**Cat No:** VC 962 **Price:** \$8.00

#### Pathway to Safety 3: Smoking Safety (C)

This dra matic video stresses the im por tance of not smok ing in an un der ground coal mine.

Ziegler Coal Co. 2001 6 min

Cat No: VC 964 Price: \$8.00

#### Underground Electrical Safety (C)

This AEP (Amer i can Elec tric Power) video discusses some of the more com mon types of elec tri cal haz ards that may be found in un der ground mines. It will bene fit certified elec tricians as a re view, and the general under ground mining population will learn about basic elec trical safety.

AEP 2001 19 min

**Cat No:** VC 963 **Price:** \$8.00

## TRAINING MATERIALS

This section lists the available printed programs developed since the last issue of our training catalog.

## Audiometric Testing Reference Guide for MSHA's Occupational Noise Exposure Standard

This audiometric testing guide provides mine oper ators with examples of validated scientific methods and/or equipment specifications for testing the hearing sensitivity of miners.

MSHA 2000 16 pp

Cat No: IG 57

**Price:** Free of charge (1 copy) \$2.00 (each additional copy)

## INFORMATIONAL REPORTS

This section lists available Informational Reports (IRs) produced since the last issue of our training catalog.

Informational Reports (IRs) are an on-going series of scientific and technical publications produced by MSHA. IRs are free of charge. Use the or der blank in the back of this catalog to request IRs. Please order by IR number and title.

#### Fracture Mechanic Approach to Understanding Supports in Underground Coal Mines, The

This re port in tro duces a tech nique for un der stand ing sup ports in un der ground coal mines. The re port describes the lat est ad vances in soft ware de vel op ment and an in-depth ex am ple of the frac ture me chan ics ap proach. An im proved yield ing tech nique in cor porat ing a three-stage pro cess for strain-soft en ing is included.

MSHA 2001 68 pp

Cat No: IR 1263
Price: Free of charge

This section lists training materials (exercises) developed by the National Institute of Occupational Safety and Health (NIOSH) and the former Bureau of Mines.

Each exercise is followed by a summary of the exercise content, type of au dience for which it is de signed, materials needed to complete the exercise, cost of materials, and the catalog or dering number.

NOTE: Each exercise has specific information pertaining to that individual exercise.

#### Apparent Diving Accident (C/MNM)

You are on a pic nic with your fam ily. Some teen ag ers ask you to help their friend who is hurt. You find a young man ly ing on the bank of a river. He ap pears par tially par a lyzed. His friends say he was in jured diving into the shal low wa ter. You must de cide what to do.

#### **Audience:**

Basic first aid class

#### Materials needed:

Instructor's copy

Problem booklet - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - over head projec tor and over heads of the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 1

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each \$1.00 each \$1.00 each

## Basics of Transformers and Monitors (C/MNM)

Mining equip ment of ten makes use of AC cir cuits with trans form ers. AC cir cuits with trans form ers are the basis for ground fault monitoring systems that are used on shut the cars and other equip ment. These safety systems are designed to prevent electrical shocks to work ers. If ground monitor systems are by passed, serious injuries and fatalities can result. You need to work through the exercise an swering questions about the diagrams.

#### **Audience:**

Mine electricians and miners

#### **Materials needed:**

Instructor's copy

Problem booklet - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheets - may be du pli cated from the Instructor's copy

Demonstrationapparatus which allows the class members to du pli cate the conditions found in the exercise - directions for making this are found in the instructor's copy as well as a list of materials needed. Items should be readily available locally.

Op tional - over head projec tor and over heads of the di a grams found in the in struc tor's copy and the problem book let

Cat No: NI 2

#### Belt Fire Exercise (C)

You are the fore man for an eight per son crew that is ad vancing the headings of a long wall entry. You receive a call from the dispatcher reporting smoke coming out the belt entry from your section 5,000 feet outby your position. The air at the face is clear. You must decide how to evac u ate the section, what equip ment to take with you, gather in for mation about the location and size of the fire, and determine if you should fight the fire or leave. The lives of the eight min ers you su per vise, the lives of many other min ers in the mine, and the well-being of the mine depend upon your judg ments and actions.

#### **Audience:**

Underground coal miners

#### **Materials needed:**

Instructor's copy

Problem booklet - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - over head projec tor and over heads of the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 3

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

#### Belt Fire Injury (C)

You are the sec tion fore man. Af ter you com plete your meth ane check at the face of No. 2 en try, you think you hear some one yell ing "Fire!" You run down No. 2 en try and through the last open cross cut to No. 3 en try. You see Louie, the sec tion me chanic, run ning up No. 3 en try. Louie informs you that there is a fire along the belt, 2 cross cuts outby the tail piece. He also tells you that he has found Ollie ly ing in jured along the belt just outby the fire. You ex am ine the sit u a tion and deter mine that Ollie suffered a spi nal in jury when he fell while try ing to fight the fire. As the sec tion fore man and only EMT, you must treat Ollie's in juries plus direct fire fight ing ef forts.

#### **Audience:**

Underground coal miners and section foremen

#### **Materials needed:**

Instructor's copy

Problem booklet - 1 for each trainee, may be duplicated from the Instructor's copy

Answer sheet - 1 for each group of 3 to 5 persons working the exercise

Developing pens - 1 for each answer sheet. Information may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 4

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

#### Belt Haulage Accident (C)

[Previously called Douglas O. Tackett]

You are a gen eral in side la borer. You and Douglas Tackett are shov el ing loose coal onto the belt. While pitch ing a load, Douglas catches the tip of his shovel on the mov ing belt. Douglas' arm is thrown up and back as he is spun around and the shovel is flung down the en try. Douglas swears and holds his right shoul der with his left hand. His shoul der looks de formed and he says it hurts. You must de cide what to do.

**NOTE:** This ex er cise is very sim i lar to the **Belt**Line Prob lem de signed for surface metal
or non metal min ers.

#### **Audience:**

Underground coal miners

#### **Materials needed:**

Instructor's copy

Problem booklet - 1 for each trainee, may be duplicated from the Instructor's copy

Answer sheet - 1 for each group of 3 to 5 persons working the exercise

Developing pens - 1 for each answer sheet. Information may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 5

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

#### Belt Line Problem (MNM)

#### [Previously called Douglas O. Sanders]

You are a la borer. You and Doug Sanders are shov eling onto the belt. While work ing, Doug catches the tip of his shovel on the mov ing belt. Doug's arm is thrown up and back as he is spun around and the shovel is flung away. Doug swears and holds his right shoul der with his left hand. His shoul der looks de formed and he says it hurts. You must de cide what to do

**NOTE:** This exercise is similar to the **Belt Haul age**Accident de signed for un der ground coal
miners.

#### **Audience:**

Underground and surface metal/nonmetal miners **Materials needed:** 

Instructor's copy

Problem booklet - 1 for each trainee, may be duplicated from the Instructor's copy

Answer sheet - 1 for each group of 3 to 5 persons working the exercise

Developing pens - 1 for each answer sheet. Information may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 6

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

## Bennie's Chest Pain (C) [Pre vi ously called Bennie J. Floyd]

You and Bennie are build ing cribs in an en try that was cut too wide. It is near the end of the shift. As you are about to fin ish a crib, Bennie kneels, clutches his chest, and gasps. When you ques tion him he says he has bad chest pain and trou ble breath ing. Bennie wants to rest a min ute and then fin ish the job. You must de cide what to do.

#### Audience:

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem booklet - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - over head projector and over heads of

the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 7

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

## Bernie's Feeder Accident (MNM) [Previously called Bernie T. Red dish]

A feeder in the re claim tun nel un der the prod uct pile at a phos phate ore pro cess ing plant has failed and fallen on the belt con veyor. The belt has stopped. You and two work ers are mov ing tim bers to prop and jack the failed feeder so it can be repaired. Bernie, one of your co work ers, is tired. He places him self in a dan ger ous po si tion. He is hurt. You must pro vide first aid and re move him from the tunnel

NOTE: This exercise is very similar to Cleo's Longwall Accident de signed for un derground coal miners and Leroy's Feeder Accident de signed for coal preparation plant work ers.

#### **Audience:**

Surface metal/non metal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov

Op tional - over head projec tor and over heads of the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 8

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each
AnswerSheet \$1.00 each

#### Bob's Electrical Shock (C)

[Pre vi ously called Bob Hall]

Your friend, Bob Hall, leans against the elec tric track of the elec tric load ing shovel. The shovel lights go out and Bob con vulses. The mine floor is wet. You want to help Bob, but you need to pro tect your self too.

**NOTE:** This exercise is similar to **Bob's Loader** Accident de signed for sur face coal min ers.

**Audience:** 

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - over head projector and over heads of the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 9

**Price:** Instructor's Copy \$2.00 each Problem Book let \$1.00 each An swer Sheet \$1.00 each

#### Bob's Loader Accident (C/MNM) [Pre vi ously called Bob Woods Ex er cise]

Your friend, Bob Woods, leans against the elec tric track of the elec tric load ing shovel. The shovel lights go out and Bob con vulses. The ground is wet. You want to help Bob, but you need to pro tect your self too. You must de cide what to do and how to do it.

**NOTE:** This ex er cise is very sim i lar to **Bob's Elec**tri cal Shock de signed for un der ground coal min ers.

Sur face min ers who are trained in CPR

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons work ing the ex er cise

De veloping pens - 1 for each an swer sheet.

In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 10

Price: Instructor's Copy \$2.00 each \$1.00 each Problem Book let \$1.00 each An swer Sheet

#### Bull's Double Header: Too Much Unsupported Roof (C)

You work at a mine that has ap proval to make 34foot cuts using a remote-controlled continuous miner. The roof bolt ing ma chine has bro ken down. The continuous miner has just been refit ted with a new cut ting head and bits that cut the coal much faster. The two roof bolter op er a tors have been having a hard time keep ing up with Bull, the con tin uous miner op er a tor. At the face of No. 4 en try, Bull makes a 40-foot ex tended cut, trams back from the face, and then turns the miner and cuts the left-hand cross cut all the way through to the No. 3 en try. When the roof bolter op er a tors dis cover Bull's "dou ble header," they get the sec tion fore man, and then try to plan a safe way to bolt this large area of un sup ported roof. Shortly af ter they com plete their as sess ment and plan of at tack, a large roof fall occurs. Now the face crew must de cide how to safely clean up the fall while ad vancing roof sup port.

#### **Audience:**

Underground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy Answer sheets may be duplicated from the

instructor's copy

Optional - overhead projector and overheads of the diagrams found in the problem booklet and the answer key found in the Instructor's copy

Cat No: NI 11

**Price:** Instructor's Copy \$2.00 each Problem Book let \$1.00 each

An swer Sheet \$1.00 each

## Cleo's Longwall Accident (C) [Pre vi ously called Cleo C. Pike]

You are pull ing tim bers off the chain con veyor of a long wall sec tion and hand ing them to Cleo. Cleo is putt ing the tim bers on top of the low ered shield to give the shield con tact with the roof in a faulted area. Cleo's hand is crushed by a roof fall. You and one other miner are the only ones avail able to help him. As you help him, he passes out. Now you must de cide what to do.

NOTE: A companion exercise Cleo's Long wall Accident role play sim u la tion is also available. This exercise is also sim i lar to Bernie's Feeder Accident de signed for phos phate ore, sand and gravel, and crushed rock process ing plant work ers and Leroy's Feeder Accident de signed for coal preparation plant workers.

#### **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 12

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each \$1.00 each \$1.00 each

# Cleo's Longwall Accident (C) — Role Play [Previously called Cleo C. Pike role play simulation]

You are a jack set ter and an EMT. Your part ner Cleo yells for help. You find that his hand was crushed by a rock fall when he reached be tween a low ered chock and the roof. You ad min is ter first aid us ing the mine first aid kit that is avail able. Your first aid per for mance will be rated against a checklist by the in struc tor and your class mates.

NOTE: This exercise is a parallel version of the invisible ink Cleo's Long wall Accident exercise. The role play version provides hands-on practice of the first aid skills involved in the Cleo's Long wall Accident, Bernie's Feeder Accident, and Leroy's Feeder Accident invisible inkexercises.

#### **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy **Cat No:** NI 13

**Price:** Instructor's Copy \$2.00 each

#### Coal Miners' Chest X-ray Program (C)

As some of the min ers are eat ing lunch at the section din ner hole, Jeb, a youn ger miner, asks about the no tice of the chest x-ray pro gram he has seen on the com pany bul le tin board. The min ers be gin talking about the pro gram. Ques tions are raised about the pur pose of the pro gram, how it op er ates, what hap pens to the x-rays, and if it is im por tant for miners to partic i pate in the pro gram. As these mat ters are dis cussed you are asked to give your ad vice and opin ions about these mat ters. As the ex er cise is com pleted, the min ers will learn more about this program.

#### **Audience:**

Un der ground and sur face min ers at un der ground coal mines

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 14

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

## Continuous Miner Accident (C) [Previously called Harry Harlan]

You are the continuous miner oper a tor. You hear your helper cry out. When you stop the ma chine, you find Harry ly ing on the floor near the miner tail boom. A shut tle car oper a tor says he saw Harry get pinned to the mine roof by the tail boom. You and the other min ers on the sec tion must figure out how to care for Harry and take him out of the mine or he may die.

NOTE: This exercise is similar to the Haul Truck
RepairAccident de signed for surface miners. The exercise Continuous MinerAccident role play provides hands-on practice of the first aid skills required in this exercise.

#### **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 15

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each \$1.00 each \$1.00 each

## Continuous Miner Accident (C) – Role Play [Pre vi ously called Harry Harlan role play]

You are the continuous miner oper a tor. You hear your helper cry out. When you stop the ma chine, you find Harry ly ing on the floor near the miner tail boom. A shut tle car oper a tor says he saw Harry get pinned to the mine roof by the tail boom. You and the other min ers on the section must do a pri mary sur vey and then be gin to treat Harry's in juries, stabilize him, and pre pare him for the trip to the surface. You have a mine first aid kit. There is no EMT avail able. Your first aid per for mance will be rated

against a check list by the in struc tor and your classmates.

NOTE: This exercise provides hands-on practice for the first aid skills required for the Continuous Miner Accident and Haul Truck Repair Accident in visible inkexercises.

#### **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

An swer sheet - 1 for each trainee, may be du pli cated from the In structor's copy

Cat No: NI 16

**Price:** Instructor's Copy An swer Sheet \$2.00 each \$1.00 each

#### Continuous Miner Fire (C)

You are a mine sec tion fore man. While com plet ing pre-shift checks at the face for the on com ing sec ond shift, you hear some one yell ing "Fire!" You respond and find the continuous mining machine on fire in the last open cross cut. Near the fire a miner is down and in jured. The fire is hot and get ting out of hand. The mine roof over the burning machine begins to work and fall. Two miners are down wind from the smoke and missing. You must decide what to do to help the in jured miner, fight the fire, and locate the two missing miners while keep ing your crew and your self safe.

#### **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 17

#### Cripple Creek Deep Cut (C)

For the past few days you have been sent to 2 South panel to fill in as the third shuttle car operator. This morning, however, your buggy is down. The face boss asks you to get the scoop and take seven or eight timbers to the No. 5 entry because the last shift got off sight line. The miner will be working in entry 5 while the bolter crew pins entry 4. When you get up to the face you see that Mo, the remote control continuous miner operator, has rounded off the left inby corner in order to make his first cuts in the right hand rib. Now, he has squared around enough so that you and Red, the miner helper, can set some posts on the corner. The two of you set posts along the left inby rib of No. 5 entry while the shuttle car operator waits. You are in a tight spot when Mo decides to start mining. You must decide where the best place is to stand for safety and yet perform your job effectively. You also must learn to communicate with the continuous miner operator and the rest of the crew. There are several important decisions that you need to be make that af fect your safety as well as the others in your crew.

#### Audience:

Re mote con trol and ex tended cut miner op er a tors and face crews

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. These are "PENIB" and may be ob tained from SICPA Cus tomer Ser vice, 8000 Re search Way, Spring field, VA 22153, phone 1-888-742-7287

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 18

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each AnswerSheet \$1.00 each

#### **Cutthrough Ventilation Arrangement (C)**

Three shifts on two sec tions are driving en tries 4,800 feet from the mains to form a re treating longwall panel. The mine is very gassy. One sec tion is about to cut through to the other. A number of problems de velop. You need to make sure that the cutthrough proceeds safely and the ventilation for both sec tions re mains ad e quate. As the problem develops, other miners make er rors. If you do not correct them, lives may be lost.

**NOTE:** The **Delta Mine Cutthrough** pa per and pen cil ex er cise is a more difficult and some what differ ent ver sion of this prob lem.

#### **Audience:**

Coal mine fore men, su per vi sors, ex am in ers, and experienced miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.
In for mation may be obtained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 19

#### Delta Mine Cutthrough (C)

Planned cutthroughs from one mine sec tion to another are un der way over a pe riod of sev eral days and three shifts as a re treat ing long wall panel is being set up. The mine lib er ates large quan ti ties of meth ane. You must an a lyze the sit u a tion, iden tify and cor rect prob lems, and make sure the ven tila tion re mains ade quate through out the procedure. (The ex er cise is based on an actual mine disaster in which seven min ers died.) Practice is provided in the critical planning, prob lem recognition, judgment, and decision-making skills needed to cope with a complex cutthrough procedure and the major ventilation changes that may result.

**NOTE:** The Cutthrough Ventilation Arrangement exercise is an easier and some what different version of this problem.

#### **Audience:**

Coal mine su per vi sors, mine fore men, and mine examiners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each trainee, may be du pli cated from the In structor's copy

Optional - overhead projector and overheads of the diagrams found in the instructor's copy and the problem booklet

Cat No: NI 20

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

#### Drainway Entry (C)

You are the roof bolter op er a tor work ing with a crew that is cut ting a 265-foot sin gle en try drainway into old works that may be filled with wa ter. You must de cide if it is safe to work in the en try with the equip ment and pro ce dures avail able or if you need to take ad di tional pre cau tions. As you work and the cut pro gresses, you have to make de ci sions that affect your life and the lives of your bud dies.

#### **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for mation may be obtained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov
Optional - overhead projector and overheads of
the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 21

Price: Instructor's Copy \$2.00 each Problem Booklet \$1.00 each \$1.00 each

An swer Sheet \$1.00 each

## Electrical Shock Victim (MNM) [Pre vi ously called Lynwood W. Puckett]

You and Lynwood are main te nance me chan ics repair ing a piece of equip ment in the float plant. It is night shift and dark and wet. You are on the fifth level and no one else is around. You de cide to use an elec tric im pact wrench to break a cou pling on an acid mixer. A nearby wall-mounted 110-volt re cepta cle is drip ping wa ter. Be cause it is dark, Lynwood does not see the wa ter drip ping from the re cep ta cle. You try to warn him, but he ap proaches the re cep tacle and plugs in the wrench. Then he con vulses. You must de cide what to do to help Lynwood and not get elec tro cuted your self.

#### **Audience:**

Phos phate ore, sand and gravel, crushed rock, and other ore processing plant work ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 22

## EMT Response to Coal Bump (C/MNM) [Previously called Everett M. Ar nold]

You have been dis patched to the long wall sec tion to care for a miner in jured by a chain pil lar bump. You take a helper and first aid kit with you. Your sup plies include a stethoscope, sphyg momanometer, cervical col lar, in flat able splints, and various dressings and ban dages. Upon ar riving at the section you meet a stretcher team trans porting Everett. You are in formed that he was the only miner in jured by the out burst.

**NOTE:** This ex er cise is a sim pler ver sion of the **Para medic Re sponse to Coal Bump** designed for para medics.

#### **Audience:**

**EMTs** 

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - over head projector and over heads of the Mas ter An swer Sheet and Scoring Key found in the In structor's copy

Cat No: NI 23

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

#### Escape From a Mine Fire (C)

You are the fore man on a 3 en try long wall de vel opment panel 2,500 feet from the mains, and 15,000 feet from the por tal. Sud denly a cloud of smoke comes up the belt en try. As you warn and as sem ble the crew the smoke be comes thick. A call from the sur face or ders the im me di ate evac u a tion of the section. The lo ca tion of the fire is un known. You lead the min ers out the in take air en try only to en coun ter heavy smoke af ter a few cross cuts. You di rect the min ers to don their SCSRs and con tinue on. One miner can not keep up and de lays the es cape of the oth ers. Soon the smoke be comes so thick that vis ibil ity is only a few inches. The por tal is still over two miles away. You must help your crew es cape

from the mine be fore their SCSRs are de pleted, but you also do not want to leave the one miner be hind.

#### **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 24

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each Answer Sheet \$1.00 each

## Focus on Prevention: Conducting a Fire Risk Assessment (C/MNM)

This train ing pack age out lines a group activity. During this session train ees will: 1) learn about risk assess ment concepts and tools and 2) conduct a risk as sess ment of their work en viron ment. The guide out lines six steps to completion of a fire risk as sessment and provides two forms that can be used to document the process. References for additional information are included. Conducting this activity with groups of work ers on-site will result in the identification and prioritization of fire safety hazards. This will lead in creased effective ness in fire prevention and response planning.

#### **Audience:**

Any group of work ers fa mil iar with the location(s) being studied

#### **Materials needed:**

Instructor's copy Cat No: NI 25

**Price:** Instructor's Copy \$2.00 each

# Haul Truck Repair Accident (C/MNM) [Pre vi ously called Harry Hastings]

You are at a sur face mine in a pickup truck. You see Harry plac ing crib blocks be tween the frame and the bed of a large gob truck. The op er a tor is in the truck cab. Sud denly the bed drops down, pin ning Harry. If it were not for the blocks, Harry would have been cut in two. The op er a tor quickly raises the bed. Harry falls to the ground near the rear wheels. The ra dios in both the gob truck and pickup are bro ken. It is 20 min utes by pickup truck to the near est help. You and the truck op er a tor must fig ure out what to do for Harry or he may die.

**NOTE:** This exercise is similar to the **Continuous**MinerAccident de signed for un der ground
min ers. The **Continuous MinerAccident**role play simulation provides hands-on
practice of the first aid skills taught in this
exercise.

#### **Audience:**

Sur face coal and metal/non metal min ers

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 26

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Hazard Recognition Training Program for Construction, Maintenance and Repair Activities (MNM)

This is a train ing pro gram that pro vides min ers with in for mation for in creasing their knowledge and awareness of many haz ards that exist in conducting CMR (construction, main tenance and repair) tasks in the work place. The program coordinates specific in struction materials with 3-D scenes that depict a variety of

CMR haz ards and en hance the per cep tual skills of the train ees. To gether, the trainee and in struc tor iden tify the haz ards and dis cuss ap pro pri ate safe work practices and steps to cor rect them. The in struc tional method ol ogy that this pro gram uses has been suc cess fully tested for im prov ing job safety per for mance of min ers.

Audience: Surface non-coal employees

# Materials needed:

Instructor's copy

3-D reels - one set for each person in the class Viewmaster 3-D viewers - one set for each person in the class. These may be purchased from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

True/false quiz - 1 for each trainee, may be duplicated from the Instructor's copy
Student handout - 1 for each trainee, may be duplicated from the Instructor's copy

Cat No: NI 27

**Price:** Instructor's Copy \$2.00 each Three "3-D Reels" \$2.00 each

# Hazard Recognition Training Program for Underground Limestone (MNM)

This haz ard rec og ni tion train ing pro gram was devel oped by com bin ing the de graded im age con cept with 3-D slides. It fo cuses on teach ing min ers certain tech niques for rec og niz ing vi sual cues in the work place and us ing these cues to eval u ate min ing conditions and haz ard ous situations.

#### **Audience**

Under ground lime stone miners

# **Materials needed:**

Instructor's copy

3-D reels - one set for each person in the class Viewmaster 3-D viewers - may be purchased from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

Student handout - 1 for each trainee, may be duplicated from the Instructor'scopy

True/false quiz - 1 for each trainee, may be duplicated from the Instructor's copy

Optional - overhead projector and overheads of the pages found in the Instructor's copy

Cat No: NI 28

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each An swer Sheet \$1.00 each Four "3-D Reels" \$2.00 each

# Highwall Rescue Exercise (C) [Pre vi ously called Marvin Letcher Highwall]

You are a front-end loader op er a tor. Marvin, a coworker, ap proaches an un sta ble highwall. Suddenly a large rock falls, com pletely cov er ing his legs. Marvin is trapped ly ing face down and scream ing. Small pieces of rock con tinue to drib ble down from the highwall. You and the other four min ers pres ent must fig ure out how to help Marvin while pro tect ing your selves. You must free Marvin, re move him from dan ger, and pro vide first aid for his serious in juries.

**NOTE:** This exercise is similar to the **Unsupported Roof Res cue** de signed for un der ground
coal miners and its companion **Un sup ported Roof Res cue** role play exercise.

#### **Audience:**

Sur face coal min ers

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 29

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each Answer Sheet \$1.00 each

#### Hot Gun Car (MNM)

You are a hy drau lic gun car op er a tor at the No. 1 pit. You re turn to your car to re sume pump ing af ter checking a leak. You walk through a wa ter hole and place your left hand on the hand rail to steady your self while step ping onto the deck. You re ceive an elec tri cal shock. You must de cide what to do to avoid in jury to your self and oth ers. You are not a qual i fied elec tri cian, al though you have had some elec tri cal train ing.

**NOTE:** This exercise is similar to the **Hot Shut tle**Car de signed for under ground coal miners.

#### **Audience:**

Surface phosphate ore and other hydraulic pit miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 30

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

# Hot Shuttle Car (C)

You are a shut tle car op er a tor. Af ter lunch you are about to get on your buggy. Your feet are wet. As you place your left hand on the can opy you get a shock. You are not a cer ti fied elec tri cian but you have had some elec tri cal train ing. You must de cide what to do next.

**NOTE:** This exercise is similar to the **Hot Gun Car** de signed for surface phos phate ore and other hydraulic pit miners.

#### **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 31

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each \$1.00 each \$1.00 each

### I Can't Get Enough Air (C)

You are the sec tion fore man on the 17 Left long wall de vel op ment sec tion at the Paula Ann No. 3 mine. The sec tion has been driven about 4,000 feet from 4 West Mains. One of the shut tle car op er a tors took a call from the fireboss say ing that there was smoke from an un known source com ing into your sec tion. You at tempt to con tact some one to find out where the smoke is com ing from but get no re sponse. You and your crew start rid ing out of the sec tion on the mantrip. When you en coun ter heavy smoke, you decide to take your crew and travel on foot in the belt en try which is on a neu tral split of air. Af ter trav eling about 6 cross cuts in the belt en try, you en counter heavy smoke again, at which time you and your crew don your SCSRs. After don ning the appa ratus, you and your crew con tinue trav el ing outby in the belt en try. Near the mouth of the sec tion, a miner in

the group starts to have trou ble breath ing from his SCSR be cause he is "outbreathing" the de vice since his ox y gen re quire ments are greater than the SCSR can sup ply. Soon more work ers, in clud ing your self, be gin hav ing trou ble breath ing. You must de cide when to switch to an other SCSR that you ob tain from a cache along the es cape route.

#### Audience:

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. These are "PENIB" and may be obtained from SICPA Customer Service, 8000 Re search Way, Spring field, VA 22153, phone 1-888-742-7287

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 32

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

### Injury Rate Problem at Maxmore Mine (C)

In jury rates at Maxmore Mine (an un der ground coal mine) have in creased to three times the na tional aver age in the last quar ter. As ed u cation, training, and safety spe cial ists who de velop and ap prove training plans, the train ees in your class are asked to ex amine a sum mary of the ac ci dents for Maxmore Mine. The task is to sug gest cor rec tive ac tions to lower the in jury rate. Next, three case studies are presented. Each case study de scribes at tempts by one di rec tor of health and safety to re duce in ju ries at Maxmore Mine. The train ees are asked to judge the strengths and lim i ta tions of each ap proach, to de cide if the pro gram would be ef fec tive, and whether or not it should be ap proved. Fol lowing discussion of these ini tial case studies and class members' re sponses, the ex er cise prin ci ples are applied to an other case study sit u a tion in volving in juries to contract workers at sur face mines. Finally, a home work as signment asks the train ees to ap ply the ex er cise

prin ci ples to a real-world prob lem of their own choice where im proved train ing and per for mance eval u a tion may be one means to re duce ac ci dent and in jury rates.

**NOTE:** Completion of the exercise requires a minimum of 8 hours of class room work plus homework.

#### **Audience:**

Mine health and safety train ers

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

Answer sheets may be duplicated from the

Instructor's copy

Cat No: NI 33

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each

An swer Sheet \$1.00 each

# Investigation of a Slip/Fall Accident (C)

The mine su per in ten dent calls you into his of fice. He gives you an ac ci dent re port of an em ployee who was in jured while car ry ing rock dust bags from the rock dust car to a bat tery pow ered scoop. It is sev eral days after the ac ci dent and the mine su per inten dent as signs you and the safety su per vi sor to thor oughly in vesti gate the ac ci dent to determine all the con trib ut ing fac tors. Your job is to make specific rec om men dations to pre vent fu ture slipping/tripping accidents.

#### **Audience:**

Supervisors, safety personnel, and accident investigators

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. These are "PENIB" and may be ob tained from SICPA Cus tomer Ser vice, 8000 Re search Way, Spring field, VA 22153, phone 1-888-742-7287

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 34

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Leroy's Feeder Accident (C) [Pre vi ously called Leroy B. Perkins]

A feeder in the tun nel un der the stock pile at a coal prep a ra tion plant has failed and fallen on the belt cou pling con veyor. The belt has stopped. You and two work ers are mov ing tim bers to prop and jack the failed feeder so it can be re paired. Leroy, one of your co work ers, is tired. He places him self in a danger ous po si tion and be comes in jured. You must provide first aid and re move him from the tun nel.

NOTE: This exercise is similar to Bernie's Feeder Accident de signed for phos phate ore process ing plant work ers and Cleo's Longwall Accident de signed for un der ground coal min ers. The Cleo's Longwall Accident role play simulation provides hands-on practice of the first aid skills required for this exercise.

#### **Audience:**

Coal preparation plant miners

#### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 35

Price: Instructor's Copy \$2.00 each Problem Booklet \$1.00 each

An swer Sheet \$1.00 each

# Lingering Smoke Exercise (C) [Previously called Chester O. Peterson]

You are one of three scoop op er a tors. During the first part of the shift an en try was shot and partly loaded. One of the other scoop op er a tors, Speedy, has com plained that he was dizzy and sick to his stom ach. Oth er wise, the shift has gone on as usual. You re en ter the mine af ter lunch and no tice that some smoke is still hang ing. You are wor ried that the ven ti la tion may not be ad e quate. Soon the two scoop op er a tors, Speedy and Ches ter, who are at the face, go down. You must de cide what to do to help them.

#### **Audience:**

Under ground coal miners

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 36

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

#### Low Coal Fire (C)

You and your helper are work ing in an in take air en try at the face. The coal height is 28 inches. Heavy black smoke sud denly sweeps down on you from one of the in take air en tries. You must de cide what to do to warn oth ers, to get to the as sem bly point, and to get out. The prob lem be comes more com pli cated when one of the min ers is miss ing.

#### **Audience:**

Under ground coal miners

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An eyer sheet 1 for each group of 3 to 5 per so

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for mation may be obtained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov
Optional - overhead projector and overheads of
the Master Answer Sheet and Scoring Key
found in the Instructor's copy

Cat No: NI 37

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Main Haulage Scaling (C)

You are run ning the lead lo co mo tive pulling twenty empty coal cars into 3 East. Lynnbo is run ning the trail lo co mo tive be hind the trip. Af ter you put the emp ties on the sec tion tip ple, Lynnbo asks if you no ticed the area of bad roof outby the fire car on the main line. You an swer that you had n't, and you ask Lynnbo how bad it looked. Lynnbo said he thought that the roof looked ugly to him, but since he works in the shop, it all looks ugly. This is your sec tion and you know it has been re cently rebolted. However, you de cide to look at it. You tell Lynnbo that you will fol low him to the area in ques tion. You must de cide the saf est course of ac tion in de ter mining if there is a prob lem, then you must de cide the saf est course of ac tion to take in hav ing the bad roof fixed.

#### **Audience:**

Under ground coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov

3-D reels - one reel for each person in the class Viewmaster 3-D viewers - may be purchased

from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 38

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each One "3-D Reel" \$2.00 each

### Man in the Bin (C/MNM)

You are the weigh mas ter at the truck dump ing bin scale at a prep a ra tion plant. Jake, a truck driver, raises the bed of his truck to dump a load in a bin. The load won't dump and the truck bed won't come down. The bin ap pears to be full. Jake climbs into the bin on top of the coal. Sud denly the bridge of coal col lapses. The 20 tons of coal in the bed of the truck slides out and bur ies Jake in the bin. You must de cide what to do to help him with out risk ing your life or the lives of oth ers.

### **Audience:**

Per sons work ing at coal prep a ration plants and around bins of gran u lated materials

# Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 39

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

### Motor Supply Accident (C)

# [Pre vi ously called Thurman "Hap" An der son]

Thurman "Hap" An der son brings some sup plies to a sec tion. Cal meets him by a sup ply car on the section. Both Hap and Cal ex hibit some un safe work practices. An ac ci dent de vel ops and Cal's leg is caught in the cou pling. You must de cide how Cal

should be freed from the cou pling, what first aid he needs, and how to care for him.

#### **Audience:**

Under ground coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 40

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# New Roof Bolter (C) [Pre vi ously called Pot Luck Mine]

You are an ex pe ri enced roof bolter who has been out of work for a year. This is your sec ond day at a new mine. When you go to the sec tion the boss tells you to bolt up the face area in No. 2 head ing. You find 3 un bolted cuts in the head ing and two other un bolted cuts on the sec tion. You want to keep your job, but you also want to pro tect your self and your co work ers. You must de cide what to do.

# **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

Answer sheets may be duplicated from the Instructor's copy

**Cat No:** NI 41

**Price:** Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each

An swer Sheet \$1.00 each

# Paramedic Response to Coal Bump (C/MNM) [Pre vi ously called Arnel V. Beam]

You are an ad vanced life sup port trained EMT. You are called un der ground to care for a miner in jured by a coal out burst on a long wall face. You have a well-equipped first aid kit and a helper. You meet min ers bring ing Arnel out. He is barely con scious and has dif fi culty breath ing. You must di ag nose and treat his pneumothorax or he may die.

**NOTE:** This exercise is similar to **EMT Re sponse** to Coal Bump de signed for EMTs.

### **Audience:**

**Paramedics** 

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 42

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Persephone Mine Explosion (C/MNM)

You are the only EMT avail able. There has been a mine ex plo sion. When you get to the por tal, the unin jured min ers are bring ing out the eight vic tims. Am bu lances and med i cal help are on the way. Now you have to de cide which of the eight in jured miners to care for and in what or der. You have the other min ers to help you and a cou ple of first aid kits.

# Audience:

EMTs and para medics

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the Instructor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 43

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each
Answer Sheet \$1.00 each

# Pete's Predicament: Unsupported Roof (C)

The preshift ex am i nation has been completed. The en tire sec tion has been rock dusted. John and Eddy ad vance the miner to the face of the No. 3 en try and be gin cut ting coal. Pete is stand ing near the right rib watch ing the min ing ma chine to ob serve its new wa ter spray sys tem. A shut tle car co mes up close to the right rib. Af ter watch ing the miner cut coal for less than a min ute, Pete starts to get wor ried that he is in dan ger of being squeezed be tween the continuous miner and the rib. He steps back around the corner into the right-hand cross cut which is rock dusted. Then he no tices that half the cross cut is unbolted and the top is drib bling small pieces of shale! Pete can not es cape into the No. 3 en try be cause the miner tailboom and shut tle car block this route. He sees that the far end of the cross cut is bolted. Pete must de cide what to do to es cape and to warn Eddy, John, and the shut tle car op er a tor who are inby an un bolted cross cut. Af ter Pete and Eddy es cape, John must de cide whether to aban don the min ing machine and make a run for safety or to stay in the miner op er a tor com part ment un der the can opy.

#### **Audience:**

Under ground coal miners

# Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the Instructor's Copy
Answer sheets may be duplicated from the Instructor's copy

Cat No: NI 44

**Price:** Instructor's Copy

Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each Answer Sheet \$1.00 each

# Pipe Repair Problem (C/MNM)

A worn sec tion of a large over head coal slurry pipe must be re moved and re placed be fore the prep plant can start up. You are a la borer. You have been assigned to help two main te nance work ers make the re pairs. As you pre pare to do the work, many hazards and po ten tial prob lems are pres ent. You must rec og nize the haz ards and act to pre vent ac ci dents. Oth er wise, you or oth ers may be in jured and property may be dam aged.

# **Audience:**

Mainte nance work ers in preparation plants

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - over head projector and over heads of the il lustrations from the Problem book letand the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 45

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each
AnswerSheet \$1.00 each

### Pit Distribution Troubleshooting (C/MNM)

The sur face mine where you work re ceives its power from a 138 KV util ity line that is stepped down to 25 KV for pit dis tri bu tion. Sub stations make fur ther re duc tions to 4,160 volts for oper a tion of smaller equip ment such as drills. The pit elec trical dis tri bu tion sys tem has worked well. Then a prob lem de vel ops. Power leaving a portable sub station goes through two boxes to a drill. A ground fault oc curred in the sys tem and trip ped box A. The flag was re set and the sys tem held for about a week. Then the ground mon i tor trips box B. Within a few days box A trips two more times. As a mine elec trician you must find and cor rect the elec tri cal problem so that pro duc tion and safety can be main tained.

#### **Audience:**

Sur face mine electricians

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 46

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Prep Plant Belt Problem (C/MNM) [Previously called Carl T. Donaldson]

You and Carl are main te nance work ers at a coal prep a ration plant. A belt is mis aligned be cause fine wet coal is stick ing to the tail pul ley roller. You decide to shut the belt down so the roller can be cleaned. Carl says he knows a faster way to do the job. He be gins a dan ger ous work practice. You try to stop him, but it is too late. He gets caught between the moving tail pul ley and its guard. He is hurt. You must act fast to save Carl but avoid in jury to your self.

#### **Audience:**

Per sons who work around con veyor belts in preparation plants, mines, and similar places

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 47

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

# Problem in the Shop (C/MNM) [Previously called Good Ole Bill]

You have re cently been trans ferred to an other mine and as signed to su per vise the eight me chan ics in the main te nance shop. The mine su per in ten dent is worried about tool pil fer age and loss in your de partment. Soon af ter you are on the job you hear ru mors that Bill, the best and most se nior me chanic in the group, has been steal ing tools. A cri sis de vel ops when equip ment must be re paired, but the crit i cal tool needed to do the job is miss ing. Other me chanics say Bill knows where the tool is. You must decide what to do to main tain safety and pro duc tion and to deal with the prob lem of the miss ing tool. A few weeks later, you ob serve Bill trans port ing a set

of com pany tools off the mine prop erty in his personal truck. You must de cide what to do.

#### **Audience:**

First line su per vi sors, mine main te nance per son nel, me chanics, and min ers

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for ma tion may be obtained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 48

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

#### Problem on Dragline #1 (C/MNM))

You are the op er a tor of Dragline #1. The dragline has been los ing power. Af ter mak ing some checks, you re port dam age to the trail ing ca ble about 100 feet from the ma chine. An elec tri cian and his helper come to trou ble shoot. They de ter mine that the ca ble needs re paired due to dam age by a bull dozer working in the area. The elec tri cian is in a hurry. He engages in un safe work practices. You try to stop him, but he ig nores you. Soon there is an ac ci dent. You must fig ure out how to res cue the elec tri cian without elec tro cut ing your self and then pro vide first aid to save his life.

# **Audience:**

Sur face metal/non metal and coal min ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 49

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Problem on the Belt Line (C/MNM) [Previously called J. J. John son]

You and J. J. are alone. You are walk ing up an 825-foot slope with a 17-de gree in cline be cause the conveyor belt drive has bro ken down. Ten feet from the top, J. J. clutches his chest and sits down. He is in pain and has trou ble breath ing. You are the only one there to help him. You have to de cide what to do.

NOTE: This exercise is similar to Problem on the Cat walk (Coal) de signed for sur face coal min ers and Problem on the Cat walk (Phosphate) de signed for phosphate ore, sand and gravel, and crushed stone process ing plant workers.

#### **Audience:**

Un der ground coal and metal/non metal min ers **Materials needed:** 

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 50

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each AnswerSheet \$1.00 each

# Problem on the Catwalk (C) [Pre vi ously called J. J. Smith]

You and J. J. are climb ing up the cat walk of an 825-foot-long con veyor belt to the top of a clean coal silo. You are in spect ing the belt for dam age. Ten feet from the top, J. J. clutches his chest and sits down. He is in pain and has trou ble breath ing. You are the only one there to help him. You have to de cide what to do.

NOTE: This exercise is similar to Problem on the Beltline de signed for un der ground coal and metal/non metal min ers and Problem on the Cat walk (Phos phate) de signed for phos phate ore, sand and gravel, and crushed stone pro cess ing plant work ers.

#### **Audience:**

Surface coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 51

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Problem on the Catwalk (Phosphate) (MNM) [Previously called J. J. Parsons]

You and J. J. are climb ing up the cat walk of an 815-foot-long con veyor belt to the top of a prod uct stor age bin. You are in specting the belt for dam age. Ten feet from the top, J. J. clutches his chest and sits down. He is in pain and has trou ble breath ing. You are the only one there to help him. You have to de cide what to do, and whether to go for help or stay with him.

NOTE: This exercise is similar to Problem on the Cat walk (Coal) de signed for sur face miners and Problem on the Beltline de signed for un der ground coal and metal/non metal miners.

#### **Audience:**

Surface metal/non metal min ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 52

Price: Instructor's Copy
ProblemBooklet
An swer Sheet

\$2.00 each
\$1.00 each
\$1.00 each

# Raggs and Curly Guarding Exercise (C)

A re cent in spec tion, con ducted by an in sur ance company, has iden ti fied some prob lems with ma chine guard ing around the mo bile con veyor sys tem at a surface coal mine. The su per in ten dent asks that you, a chief me chanic, con duct a more thor ough in spec tion and doc u ment your find ings. You are to re port back to the su per in ten dent with rec om men dations that will be part of a com pany-wide ma chine guard ing policy. The su per in ten dent as signs "Curly," who just re cently became a me chanic helper, to ac com pany you. You are to take this op por tu nity to teach him safe ma chine guard ing prac tices. You travel through the com plex and be gin to doc u ment your find ings.

### **Audience:**

Sur face coal min ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

3-D reels - one reel for each person in the class

Viewmaster 3-D viewers - may be purchased from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 53

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each One "3-D Reel" \$2.00 each

### Roof Control at Intersections Exercise (C)

Two un der ground coal min ers are asked to ad vance the power cen ter, mo bile equip ment, and trail ing cables in the work ing sec tion. While sur vey ing their as sign ment, they no tice coal spalling along the left rib of the belt en try. They must in ves ti gate and deter mine if a prob lem ex ists with roof and rib con ditions and the di ag o nal mea sure ments of several in ter sec tions. They are to take any cor rec tive actions that might be nec es sary.

### **Audience:**

Underground coal min ers

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 54

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

### Roof Fall Entrapment (C)

A group of min ers are ex tract ing pil lars in an un safe man ner. There is only one escapeway from the area where they are work ing. Ear lier roof falls have blocked the other escapeways. The top is bad in the one en try be ing used for the haul road. The posts and cross bars that sup port it at the in ter sec tion of a cross cut be gin to sag so much that the shut tle car you are driv ing can't come out from the face. The fore man yells at you to tell the min ers to get out. But it is too late! As you are about to come out there is a large roof fall that com pletely blocks the one escapeway. You and the other min ers are lucky. No one is hurt, but now you must de cide what to do.

**Audience:** Un der ground coal min ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 55

Price: Instructor's Copy \$2.00 each Problem Booklet \$1.00 each An swer Sheet \$1.00 each

# Roof Support in a Primary Escapeway (C) [Pre vi ously called D. R. Light]

On a re cent run of the escapeways, the sec tion boss no tices that the brow of a high fall area has be gun to de teri o rate. On this particular day, the face boss asks the miner oper a tor and helper to follow the escapeway out from the face and take down any loose top at the high fall area. After correcting this problem the work ersen counter an other haz ard ous roof condition nearby. This in volves deterioration of the immediate roof around the bolt heads as a result of mois ture in the mine air.

#### **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov 3-D reels - one reel for each person in the class

Viewmaster 3-D viewers - may be purchased from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

Op tional - over head projec tor and over heads of the Mas ter An swer Sheet and Scoring Key found in the In struc tor's copy

Cat No: NI 56

Price: Instructor's Copy Problem Booklet \$1.00 each An swer Sheet \$1.00 each One "3-D Reel" \$2.00 each

# Safety Talk: The Emergency Communication Triangle (C/MNM)

This safety talk fo cuses on the con tent of emergency warn ing mes sages. Re search shows that when an emer gency oc curs, peo ple of ten do not get the in for ma tion they need in or der to take ap pro priate ac tion. This safety talk pres ents a pro ce dure using men tal cues that can be used by send ers and re ceiv ers of emer gency warn ings. Graph ics for use during the talk and ref er ences are in cluded.

#### **Audience:**

All mining employ ees at all ex perience levels. Ex amples and il lus trations are taken from the under ground coal mining in dustry, but the training can be tailored to any work setting by substituting appropriate examples.

#### **Materials needed:**

Instructor's copy

Optional - Overhead projector and transparencies of the nine illustrations included in the Instructor's copy

Optional - Stickers to serve as memory aids

Cat No: NI 57

**Price:** Instructor's Copy \$2.00 each

# Sammy's Loose Roof Decisions (C) [Previously called Sammy Spadd]

During your rou tine sur vey work as a tran sitman, you ob served in re cent weeks that an idle sec tion in 2 North mains, about 3 miles from the por tal, has been ex pe ri enc ing se ri ous roof prob lems. One of the mine en gi neers stated that the prob lems were due to the sud den pres ence of slips in the roof run ning in the direction of mining. Several falls and significant down time have forced the company to re con sider the de vel op ment of 2 North. The gen eral su per inten dent informs you and Sammy that the com pany will re ac ti vate the idled sec tion be gin ning next shift. You are to en ter the mine and set sights in 2 North to re-ori ent all the en tries by 45 de grees to the east be fore the reg u lar day light crew ar rives. You are be gin ning your work when you no tice a sec tion of top lower than the sur round ing area. You must decide whether this is a prob lem that can wait or if it should be taken care of im me di ately.

# **Audience:**

Under ground coal miners

#### Materials needed:

Instructor's copy

Problem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

3-D reels - one reel for each person in the class

Viewmaster 3-D viewers - may be purchased from your local toy store or purchased directly from the manufacturer at Fisher-Price, Inc., Viewmaster Custom Sales, Customer Service, 636 Girard Avenue, East Aurora, NY 14052, phone 716-687-3899

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 58

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each One "3-D Reel" \$2.00 each

# Scoop Accident, First Aid Problem (C) [Previously called Paul Pan cake]

Af ter nine months of un em ploy ment, Joe has completed the re quired train ing to re en ter the mines and also com pleted an ad vanced first aid course. He has been hired as an ex pe ri enced roof bolter at a drift mine. This is his first day on the job. A scoop loaded with sup plies pulls up and six other min ers start climbing on top of it. Two min ers get into the bucket next to the sup plies. Joe is in structed to ride on top of the scoop. The mine roof is low and the road way is rough. As the scoop ap proaches the din ner hole, some one screams "Stop!" Paul has fallen off. Paul is ly ing on his back in a pud dle of wa ter on the mine floor, just be hind the scoop bucket. The scoop has run over him. There is blood on both of Paul's legs just be low the knees. No one takes charge. Joe must de cide what to do.

### **Audience:**

Underground coal miners

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 59

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each Answer Sheet \$1.00 each

# Smoke on the Section (C)

# [Pre vi ously called Cecil]

Big Tim and Cecil are work ing on a super section. Cecil is in No. 1 en try (re turn air course) at the face re placing bits on a continuous miner when heavy smoke comes down on them from some where on the section. Cecil has a filter self-rescuer. Tim left his in No. 8 en try. Cecil must find a way to help Tim, plan a good route to travel through the smoke to warn others and get help, and help lo cate and fight the fire.

### **Audience:**

Under ground coal miners

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 60

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

## **Tipple Heater Exercise (MNM)**

You are a qual i fied elec tri cian with 5 years of ex pe rience. Be low freez ing weather has been caus ing problems on the tip ple. The tip ple boss wants an elec tri cal heater in stalled im me di ately. Your su per vi sor, the chief elec tri cian, is too busy to help and the com pany elec tri cal en gi neer is on va ca tion. He tells you to take care of it. You must de ter mine the power and wir ing re quire ments for the heater, and you must work within the Na tional Elec tri cal Code stan dards.

### **Audience:**

Surface or un der ground metal/non metal min ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 61

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each \$1.00 each

#### Trailing Cable Electrical Problem (C/MNM)

Sam, the shut tle car op er a tor, has dumped two buggies of coal and is go ing back to the miner for another when the breaker trips, stop ping the buggy. The breaker is re set, but be gins to trip re peat edly. Sam and the sec tion elec tri cian must use safe work prac tices to find and cor rect the elec tri cal prob lem.

#### Audience:

Mine Electricians

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the Instructor's copy

Answer sheets may be duplicated from the Instructor's copy

Cat No: NI 62

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each Answer Sheet \$1.00 each

# Trailing Cable Repair (C)

You are the roof bolter op er a tor. You re port dam age to the bolter's trail ing ca ble and are wait ing for it to be re paired and spliced. Fix-It, the elec tri cian, and his helper come to re pair the ca ble. Their pro cedures worry you. The mine floor is wet. There is an ac ci dent. You are the only one around to help.

#### **Audience:**

Under ground coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 63

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each AnswerSheet \$1.00 each

# Traumatic Arm Amputation (C) [Pre vi ously called Tom A. Arnette]

You and two other min ers find Tom, the shut tle car op er a tor, kneel ing with his back to the rib. His right arm has been sev ered about 6 inches be low the shoul der joint. You must take care of and trans port Tom to the sur face where an EMT will take over.

**NOTE:** The **Traumatic Arm Amputation** role play simulation is a parallel version of this exercise. The role play version provides hands-on practice of the first aid skills involved in this exercise.

# **Audience:**

Under ground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for ma tion may be ob tained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov
Optional - overhead projector and overheads of
the Master Answer Sheet and Scoring Key
found in the Instructor's copy

Cat No: NI 64

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each AnswerSheet \$1.00 each

# Traumatic Arm Amputation (C) - Role Play

While un load ing at the feeder-breaker, a shut tle car op er a tor reaches over the side board into the shut tle car to pull out a piece of strap iron. As he reaches into the shut tle car, his leg strikes the con trol that raises the shut tle car boom. The side board raises up quickly, moves past the can opy, and cuts off his right arm at the shoul der. He stag gers out of the op er a tor's com part ment, hold ing his left hand over the stump of his right arm. He slumps down against the rib, bleed ing heavily. His sev ered arm is still in the box of the shuttle car. Some one stops the feeder. You wit ness the entire ac ci dent which takes place in just a few sec onds.

You must act fast or the shut tle car op er a tor will die. **NOTE:** This is a companion exercise to **Traumatic ArmAmputation.** 

# Audience:

Underground coal miners

#### **Materials needed:**

Instructor's copy **Cat No:** NI 65

**Price:** Instructor's Copy \$2.00 each

# Traumatic Head Injury (C)

You are a scoop op er a tor. Your cousin, Bud, op erates an other scoop. While Bud is back ing his scoop out of #1 en try, you hear his hat strike a low overhang ing brow, fol lowed by his curs ing. He is okay. Later you go up to the scoop which is stopped in the area of the over hang. The scoop is not run ning. You find Bud slumped over in the cab. Now you must de cide what to do to help Bud.

### **Audience:**

Underground coal miners

### Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 66

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Travel Through Smoke (C)

You are the sec tion fore man on a 4 en try long wall de vel op ment panel that has been driven about 4,000 feet from the mains. You are in the track en try check ing sup plies with the util ity man when you smell smoke. You find that the smoke is not orig inat ing on your sec tion. You call the dis patcher to find out the source of the smoke but he does not know and tells you he will try to find out. You assem ble your crew, don your SCSRs, board the mantrip, and be gin rid ing out of the sec tion in the al ter nate (sec ond ary) escapeway. You want to travel as far as pos si ble on the mantrip since this is the fast est and eas i est way out of the mine. You travel about 3,000 feet un til the smoke be comes so thick that you can't see to con tinue. You stop the mantrip and lead your crew into the pri mary escapeway where the smoke is not as heavy and con tinue your es cape on foot. You travel about 1,100 feet in the pri mary escapeway un til you reach clear air in the mains and dis cover that you are outby the fire.

#### **Audience:**

Under ground coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 67

Price: Instructor's Copy \$2.00 each ProblemBooklet \$1.00 each

An swer Sheet \$1.00 each

# Trouble in the Training Room (C/MNM) – Invisible Ink Exercise

You are teach ing a hands-on first aid sim u la tion exer cise. You need a per son to play the part of a victim and three oth ers to play the part of the first aid team. Sally, one of the women min ers, vol un teers to be the vic tim. Im me di ately, Al bert vol un teers to admin is ter first aid. He be gins to make lewd re marks about Sally and makes ob scene ges tures. You must de cide what to do to pro tect the dig nity and rights of the per sons in your class and how to cope with Albert's disruptive behavior.

**NOTE:** A companion paper and pencil exercise **Trou ble in the Training Room** is also available.

#### **Audience:**

Mine health and safety in struc tors/train ers

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 68

**Price:** Instructor's Copy \$2.00 each

ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Trouble in the Training Room (C/MNM) – Paper and Pencil Exercise

You are teach ing a hands-on first aid sim u la tion exer cise. You need a per son to play the part of a victim and three oth ers to play the part of the first aid team. Sally, one of the women min ers, vol un teers to be the vic tim. Im me di ately, Al bert vol un teers to admin is ter first aid. He be gins to make lewd re marks about Sally and makes ob scene ges tures. You must de cide what to do to pro tect the dig nity and rights of the per sons in your class and how to cope with Albert's disruptive be havior.

NOTE: A companion in visible inkexer cise Trouble in the Training Room is also available

#### **Audience:**

Mine health and safety in struc tors/train ers

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

Answer sheets may be duplicated from the Instructor's copy

Cat No: NI 69

**Price:** Instructor's Copy ProblemBooklet \$2.00 each \$1.00 each

An swer Sheet \$1.00 each

# Unsupported Roof Rescue (C) [Pre vi ously called Marvin R. Letcher]

You are the pin ner op er a tor. Your helper, Marvin, goes un der un sup ported roof. As you yell to him to get back, there is a roof fall. It catches Marvin's legs. He is ly ing face down and scream ing. The roof is drib bling across the whole en try. You must fig ure out how to res cue and help Marvin with out get ting your self or other min ers in jured.

NOTE: This exercise is similar to Highwall Rescue de signed for surface min ers. A companion, Un supported Roof Rescue role play, is also avail able.

#### **Audience:**

Underground coal miners

# **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet.

In for ma tion may be obtained from Bobbie
Calhoun: phone 412-386-5901, fax
412-386-5902 or email minetraining@cdc.gov
Optional - overhead projector and overheads of
the Master Answer Sheet and Scoring Key
found in the Instructor's copy

Cat No: NI 70

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Unsupported Roof Rescue (C) - Role Play [Pre vi ously called Marvin R. Letcher role play]

You are the pin ner op er a tor. Your helper, Marvin, goes un der un sup ported roof. As you yell to him to get back, there is a roof fall. It catches Marvin's legs. He is ly ing face down and scream ing. The roof is drib bling across the whole en try. You must fig ure out how to res cue and help Marvin with out get ting your self or other min ers in jured. You have slate bars, roof jacks, a mine first aid kit, a mine phone, and two other min ers who can help. Your res cue and first aid per for mance will be rated against a check list by the in structor and your class mates.

NOTE: This role play ver sion pro vides hands-on practice of the first aid skills in volved in the Highwall Rescue Exercise and Un supported Roof Rescue exercises.

#### Audience:

Underground coal miners

### **Materials needed:**

Instructor's copy

An swer sheet - 1 for each trainee, may be du pli cated from the In structor's copy

**Cat No:** NI 71

**Price:** Instructor's Copy An swer Sheet \$2.00 each \$1.00 each

# Vulcan Mine Ignition (C)

You are the on-side shut tle car driver. Just af ter lunch you pull across the last open cross cut ready to go into the No. 4 en try to load coal from the con tinu ous miner. Just as you no tice the line is down, an or ange fire ball cov ers up the continu ous miner in the en try, the miner op er a tor, his helper, and the fore man. Af ter the fire ball dies down, through the white smoke in the en try, you can see one miner

down and the other two walk ing around by the continuous miner. You must de cide what to do.

NOTE: The companion exercise, Vul can Mine Recovery, continues the problem that is in this exercise. The two exercises may be used in sequence or in dependently.

#### **Audience:**

Underground coal miners

#### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In structor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 72

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# Vulcan Mine Recovery (C)

You are the mine fore man. When you re turn from an er rand, you learn there has been a large face ig nition in the Vul can mine. The 001 sec tion crew has come out of the mine with three in jured min ers. The in jured min ers have been sent to a hos pi tal by ambu lance. You must de cide what to do to pre vent any fur ther dam age or in ju ries, to re port the ig ni tion, to learn about con di tions in the mine, and to safely restore the sec tion and the mine to op er a tion.

NOTE: The companion Vulcan Mine Ignition precedes the prob lem that is ad dressed in this exercise. The two exercises may be used in sequence or independently. This exercise has no correct an swerfeed back. Rather, it requires the trainee to work completely through the prob lem, receiving only the feed back that would be available in a real situation. Therefore, the instructormust display the an swerkey at the conclusion of the exercise. Trainees must then check the accuracy of their responses. Group discussion of the prob lem should follow.

#### **Audience:**

Under ground coal miners

# Materials needed:

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for ma tion may be obtained from Bobbie Calhoun: phone 412-386-5901, fax

412-386-5902 or email minetraining@cdc.gov Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key found in the Instructor's copy

Cat No: NI 73

Price: Instructor's Copy ProblemBooklet An swer Sheet \$1.00 each \$1.00 each

### Water Line Repair (C)

You and your su per vi sor, Big Tom Bell, are re pairing a wa ter line in the belt en try of a mine. You are 1,200 feet from the por tal and 800 feet from the near est phone which is inby your po si tion at the tail piece. You smell some thing that smells like burn ing coal. Tom sends you into the re turn air entry to get a tool from the scoop you drove in. When you come back into the belt en try, Tom is un conscious. You feel sick and weak. You must de cide what to do to help Tom and your self.

### Audience:

Under ground coal miners

### **Materials needed:**

Instructor's copy

Prob lem book let - 1 for each trainee, may be du pli cated from the In struc tor's copy

An swer sheet - 1 for each group of 3 to 5 per sons working the exercise

De veloping pens - 1 for each an swer sheet. In for mation may be obtained from Bobbie Calhoun: phone 412-386-5901, fax 412-386-5902 or email minetraining@cdc.gov

Optional - overhead projector and overheads of the Master Answer Sheet and Scoring Key

found in the Instructor's copy

Cat No: NI 74

Price: Instructor's Copy ProblemBooklet \$1.00 each An swer Sheet \$1.00 each

# INDEX (BY TITLE)

The following codes are used in the index.

IG	Instructional Guide	NI	<b>NIOSH Materials</b>
IR	Informational Reports	VC	Videotapes

	Page		Page
Ap par ent Diving Ac ci dent (C/MNM) (NI) Audiometric Testing Ref er ence Guide for	7	Fo cus on Pre ven tion: Con ducting a Fire Risk As sess ment (C/MNM) (NI)	. 15
MSHA's Occupational Noise Exposure	_	Frac ture Me chanic Ap proach to	
Stan dard (IG)	3	Understanding Supports in Under groun	_
Ba sics of Trans formers and Monitors	7	Coal Mines, The (IR)	
(C/MNM) (NI)	7	Haul Truck Re pair Ac ci dent (C/MNM) (NI).	. 16
Belt Fire Ex er cise (C) (NI)	8	Haz ard Rec og ni tion Training Pro gram for	
Belt Fire In jury (C) NI)	8	Construction, Maintenance and Repair Activities (MNM) (NI)	. 16
Belt Haul age Ac ci dent (C) (NI)	8		. 10
Belt Line Prob lem (MNM) (NI)	9	Haz ard Rec og ni tion Training Pro gram for Un der ground Lime stone (MNM) (NI)	. 16
Bennie's Chest Pain (C) NI)	9	Highwall Res cue Ex er cise (C) (NI)	
Bernie's Feeder Ac ci dent (MNM) (NI)	9	Hot Gun Car (MNM) (NI)	
Bob's Elec tri cal Shock (C) (NI)	10	Hot Shut tle Car (C) (NI)	
Bob's Loader Ac ci dent (C/MNM) (NI)	10	I Can't Get Enough Air (C) (NI)	
Bull's Dou ble Header: Too Much Un sup ported Roof (C) (NI)	10	In jury Rate Prob lem at Maxmore Mine (C)	. 10
Cleo's Long wall Ac ci dent (C) (NI)	10	(NI)	. 18
Cleo's Long wall Ac ci dent (C) – Role Play	11	In vestigation of a Slip/Fall Ac cident (C) (NI).	
(NI)	11	It Can Hap pen to You (C) (VC)	
Coal Dump Point Safety (Spanish Version)	11	Leroy's Feeder Ac ci dent (C) (NI)	
(VC)	2	Lin gering Smoke Ex er cise (C) (NI)	
Coal Miners' Chest X-ray Pro gram (C) (NI)	11	Low Coal Fire (C) (NI)	
Continuous Miner Accident (C) (NI)	12	Main Haul age Scaling (C) (NI)	
Continuous Miner Accident (C) – Role Play		Man in the Bin (C/MNM) (NI)	
(NI)	12	Motor Supply Accident (C) (NI)	
Con tin u ous Miner Fire $(C)$ $(NI)$	12	New Roof Bolter (C) (NI)	
Crip ple Creek Deep Cut (C) (NI)	13	Para medic Re sponse to Coal Bump	
Cutthrough Ventilation Arrangement (C)		(C/MNM) (NI)	. 22
(NI)	13	Path way to Safety 3: Smoking Safety (C)	
Delta Mine Cutthrough (C) (NI) $\dots$	14	(VC)	. 2
Drainway En try (C) (NI) $\dots$	14	Persephone Mine Ex plo sion (C/MNM) (NI)	
Elec tri cal Shock Vic tim (MNM) (NI)	14	Pete's Pre dic a ment: Un sup ported Roof (C)	
EMT Re sponse to Coal Bump (C/MNM)		(NI)	
(NI)	15	Pipe Re pair Prob lem (C/MNM) (NI)	. 23
Es cape From a Mine Fire (C) (NI)	15		

# INDEX (BY TITLE)

	Page		Page
Pit Distribution Trouble shooting (C/MNM)		Tip ple Heater Ex er cise (MNM) (NI)	. 29
(NI)	23	Trailing Cable Electrical Problem (C/MNM)	
Prep Plant Belt Prob lem (C/MNM) (NI)	24	(NI)	. 29
Prob lem in the Shop (C/MNM) (NI)	24	Trailing Ca ble Re pair (C) (NI)	
Prob lem on Dragline #1 (C/MNM)) (NI)	24	Trau matic Arm Am putation $(C)(NI)$	. 30
Prob lem on the Belt Line (C/MNM) (NI)	25	Trau matic Arm Am pu ta tion (C) - Role Play	
Prob lem on the Cat walk (C) (NI)	25	(NI)	. 30
Prob lem on the Cat walk (Phos phate) (MNM)		Trau matic Head In jury (C) (NI)	. 30
(NI)	26	Travel Through Smoke (C) (NI)	. 31
Raggs and Curly Guarding Ex er cise (C) (NI)	26	Trou ble in the Training Room (C/MNM) –	
Roof Control at Intersections Exercise (C)		Invisible Ink Exercise (NI)	. 31
(NI)	26	Trou ble in the Training Room (C/MNM) –	
Roof Fall En trap ment (C) (NI)	27	Paper and Pencil Exercise (NI)	. 32
Roof Sup port in a Pri mary Escapeway (C)		Un der ground Elec tri cal Safety $(C)(VC)$	. 2
(NI)	27	Un sup ported Roof Res cue $(C)(NI)$	. 32
Safety Talk: The Emergency Communication		Un sup ported Roof Res cue (C) - Role Play	
Tri an gle $(C/MNM)$ $(NI)$	28	(NI)	. 32
Sammy's Loose Roof De ci sions (C) (NI)	28	Vul can Mine Ig ni tion (C) (NI)	. 32
Scoop Ac ci dent, First Aid Prob lem (C) (NI)	28	Vul can Mine Re cov ery (C) (NI)	. 33
Smoke on the Sec tion (C) (NI)	29	Water Line Repair (C) NI)	. 33

# **ORDER FORM**

# Please allow 4-6 weeks for delivery.

DATE:	PUR CHASE ORDER NO:
NAME:	_ TI TLE:
COMPANY:	
ADDRESS:	
CITY:	STATE: ZIP CODE:
TELEPHONE(Including Area Code:)	
STATE GRANTS PARTICIPANT: ☐ YES ☐	NO

QUANTITY	CATALOG NUMBER	NAME OF ITEM	UNIT PRICE	TOTAL AMOUNT

# ORDERS FROM FOREIGN COUNTRIES

Ad vance pay ment in U.S. cur rency is re quired for ALL or ders from for eign coun tries.

Make checks pay able to: MINE SAFETY AND HEALTH ADMINISTRATION

or

Submit a Purchase Order and you will be billed later. (We are unable to accept credit cards.)

Mail completed form to: National Mine Health and Safety Academy

ATTENTION: Mary Lord

Department of Instructional Materials

1301 Airport Road

Beaver, West Virginia 25813-9426

You may telephone us at: (304) 256-3257 You may FAX us at: (304) 256-3368 You may e-mail us at: lord-mary@msha.gov